



# Grange 2011 Half Year Presentation

*Australia's leading magnetite producer*

**Russell Clark**  
*Managing Director & CEO*

31 August 2011

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# Company Overview

Grange remains Australia's **leading** magnetite producer. An **ASX 300** index company, with a **strong** balance sheet, **no** net debt, a **large** producing mine and a **larger** magnetite project.



# Key Messages – Half year 2011

- **Excellent safety** performance maintained.
- Continued **strong cash and profit** generation at the Savage River operations
- Inaugural **interim dividend of 2 cents** per share (unfranked) declared.
- **Gross profit** from mining operations of **\$92.5m**, a **45% increase** on previous half.
- Average **price** received of **US\$211.52** per tonne of pellets
- **Revenues of \$209m**, an **8% increase** on the prior six month period.
- **Half year earnings**, after tax of **\$58.1m**
- Operating **margin of \$95.2/tonne** of pellets , **28% increase** on the previous half
- Strong **cash** and trade receivables position of **\$183.7 million** and **no net debt** .
- Half year production of 840,000t of pellets. Full year forecast: 2 million tonnes
- Iron ore prices remain high, hit 3 month high last week
- Concentrator upgrade completed ahead of time and under budget.
- Southdown project Pre-feasibility study completed .
- Fully funded Definitive Feasibility Study planned for completion Q1 2012.

<b>June 2011 Half Year Results</b>	<b>Production and Costs June Half Year 2011</b>	<b>Production and Costs December Half Year 2010</b>	
Total BCM Mined (thousand)	8,203	8,027	+2%
Total Ore BCM (thousand)	759	579	+31%
Concentrate Produced (kt)	851	1,057	-29%
Weight Recovery (% DTR)	34.5	39.9	-14%
Pellets Produced (kt)	840	1,000	-16%
Pellets Shipped (kt)	727	1,175	-38%
Pellet Stockpile (kt)	181	69	+162%
Net Profit After Tax A\$m	58.1	85.2 <sup>1</sup>	-32%
Cash & Receivables A\$m	186.2	122.6	+52%
Margin A\$/t pellets	95.2	74.2	+28%
EBITDA A\$m	112.207	82740	+36%
Dividend cps	2	0	

Note 1: the profit for the six month financial period ended 31 December 2010 included a non-recurring reversal of a prior period asset impairment of \$64.6 million

# Magnetite – The premium iron ore



# Company Snapshot

## Current key statistics (A\$)

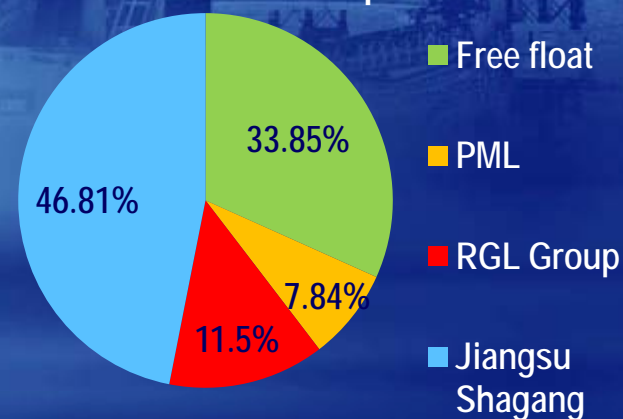
Ordinary shares on issue	29 August 2011	1,153m
Last share price	29 August 2011	\$0.44
Market capitalization	29 August 2011	\$507m
Cash & Receivables	30 June 2011	\$183.7m

Grange joined the ASX 300 in September 2010

## Board of Directors

Mr Xi Zhiqiang	Chairman
Mr Neil Chatfield	Deputy Chairman
Mr Russell Clark	Managing Director, CEO
Mr Honglin Zhao	Executive Director
Mr Clement Ko	Non Executive Director
Mr John Hoon	Non Executive Director

## Current Ownership Structure



## Research

Bell Potter  
Citi  
Macquarie  
Merrill Lynch  
Patersons  
Petra Capital  
RBS  
RBS Morgans



# Grange Board

Grange has a board with a diverse range of relevant experience.



**Xi Zhiqiang: Chairman**

- Extensive experience in the Chinese steel industry
- Baosteel employee for 30 years, including 5 years as Managing Director of Baosteel Australia



**Neil Chatfield: Deputy Chairman (Independent)**

- Recently Executive Director and CFO of Toll Holdings, a position held for over 10 years
- 30 years experience in resources, logistics and transportation sectors
- Currently Independent Chairman of Virgin Blue, Non-executive Director of Seek Limited, Whitehaven Coal Limited, TransUrban



**Russell Clark: Managing Director and CEO**

- Appointed Managing Director of Grange in March 2008
- 35 years of mining experience in technical, project management, general management and executive positions
- Prior to joining Grange, he worked for Renison Goldfields for over 18 years and Newmont Mining Corporation for 8 years



**Clement Cheung Ko: Non-executive Director**

- Chairman and CEO of Pacific Minerals Limited (PI)
- More than 20 years experience in mining sector, with extensive expertise in marketing and sales
- Prior to founding PI, he worked for BHP Billiton (China) Ltd as a senior regional marketing manager



**Honglin Zhao: Executive Director**

- Joined Shagang Group in 1976
- Executive Director & Vice President of Jiangsu Shagang Group
- Commander of Project Development for Shagang Group
- Joined Grange In December 2010, as MD of Southdown Project



**John Hoon: Non-executive Director (Independent)**

- Chairman of the Company's Audit Committee and member of the Remuneration Committee
- Strong background in financial and audit matters
- Previously a Director of Bao Australia Pty Ltd a subsidiary of China Shanghai Baosteel Corporation



**Pauline Carr: Company Secretary**

- Appointed Company Secretary in January 2010
- 25 years of management and commercial experience in the resources industry both Australian and International companies



# Jiangsu Shagang – Cornerstone Shareholder

## A strong partnership

- Grange's largest shareholder
- Major customer with a LOM offtake agreement at Savage River at market prices.
- Agreement to negotiate at fair market price for Grange's share of offtake from Southdown
- Shagang's investment in Grange represents a significant direct iron ore investment in Australia
- Potential for Grange to leverage off Shagang's strong balance sheet for Southdown development in the future



Assets	• In excess of A\$19 billion
Location	• Jiangsu Province, China
Product Range	• Heavy plate, hot strip coil, stainless hot rolled plate, cold rolled plate, high-speed wire rod, rebar coil and special steel bar
Production Capacity	• Over 29Mtpa pig iron • 35Mtpa steel products
Employees	• 35,000

*Being backed by China's largest privately owned steel producer provides a large degree of stability and is a positive for both Grange's prospects and its shareholders*

# Grange Resources

## *Australia's Leading Magnetite Producer*

*Grange's position is supported by quality assets In Tasmania and Western Australia.*

### Southdown Project (70%)

- 90km northeast of the Port of Albany
- 650 million tonnes of premium quality magnetite resource in southern Western Australia
- Targeting 10Mtpa concentrate, to produce high quality pellets for 19-40 years
- Infrastructure solutions in place (power, ports, water)
- Advanced permitting
- Potential to increase resources and reserves



### Savage River (100%)

- Northwest Tasmania
- Annualised production rate of 2.0 Mtpa premium blast furnace pellets and concentrate
- Mine life to 2026
- 118Mt reserves at 51% DTR
- Owner-operated open pit mine, 83km slurry pipeline, coastal pellet plant and port
- Dedicated infrastructure – no third party charges
- Extensive operating experience applicable to Southdown development



# Savage River **Overview**

Ownership	<ul style="list-style-type: none"><li>▪ Grange 100%</li></ul>
Resources and Reserves	<ul style="list-style-type: none"><li>▪ Mineral Resource of 306Mt magnetite at 52.3% DTR</li><li>▪ Ore Reserve of 119Mt magnetite at 51.2% DTR</li></ul>
Production	<ul style="list-style-type: none"><li>▪ 2.0 Mtpa blast furnace pellets (2011 guidance)</li><li>▪ Potential to expand to 2.6Mtpa</li></ul>
Operating Costs	<ul style="list-style-type: none"><li>▪ A\$116/t pellets (June 2011 Half)</li></ul>
Mine Life	<ul style="list-style-type: none"><li>▪ Current mine plan has a 16 year life with the potential to extend an additional 10 years</li></ul>
Customers	<ul style="list-style-type: none"><li>▪ Shagang, BlueScope Steel and Stemcor</li></ul>
Operational Update	<ul style="list-style-type: none"><li>▪ East Wall cut back continuing</li><li>▪ Major shut February 2011 successful</li><li>▪ Truck fleet rebuild complete</li></ul>





# Savage River *Large Scale Operations*



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# Savage River *Downstream Infrastructure*



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# Savage River *Port & Shiploading Infrastructure*



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## Savage River ***Solid Customer Base***

### *Long term offtake agreements – providing revenue stability*

Agreements are in place for both Savage River and Southdown production at index based market prices.

#### Shagang

- China's largest private steel mill, producing 29Mtpa of pig iron
- Grange's largest shareholder
- Savage River LOM contracts in place:
  - 1.3 Mtpa pellets until 2012, then increasing to 2.1 Mtpa pellets until 2023
- LOM contracts at market prices
- Southdown intent to negotiate a fair market price:
  - 56% of all production (80% of Grange's 70% share of the JV)

#### BlueScope

- Savage River: 0.8 Mtpa until 2012

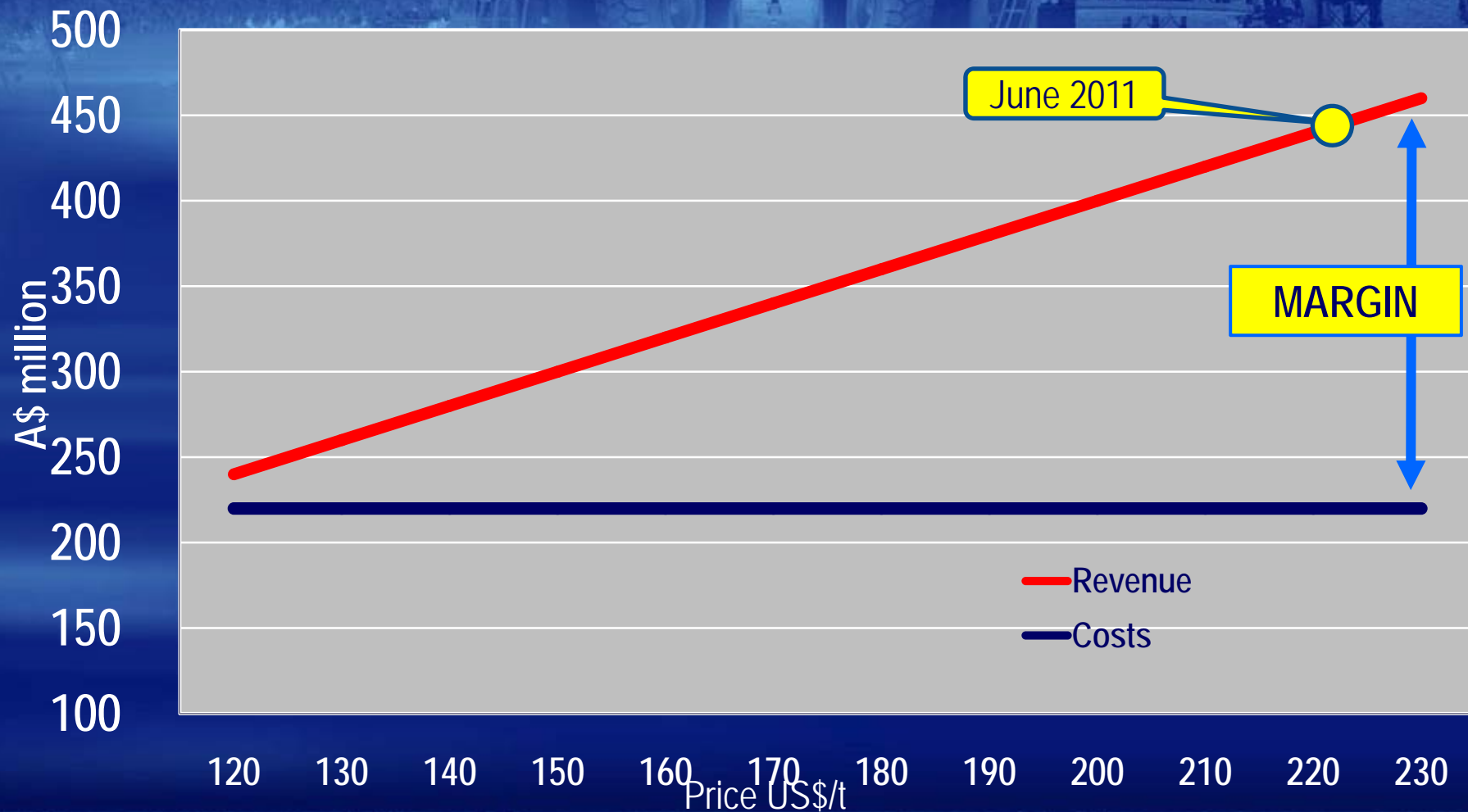
#### Stemcor

- Savage River: option to take 80,000 tpa concentrate



# Savage River - Leveraged to price

Margin leverage to price @2.0Mtpa





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# Southdown Magnetite Project *Key Facts*

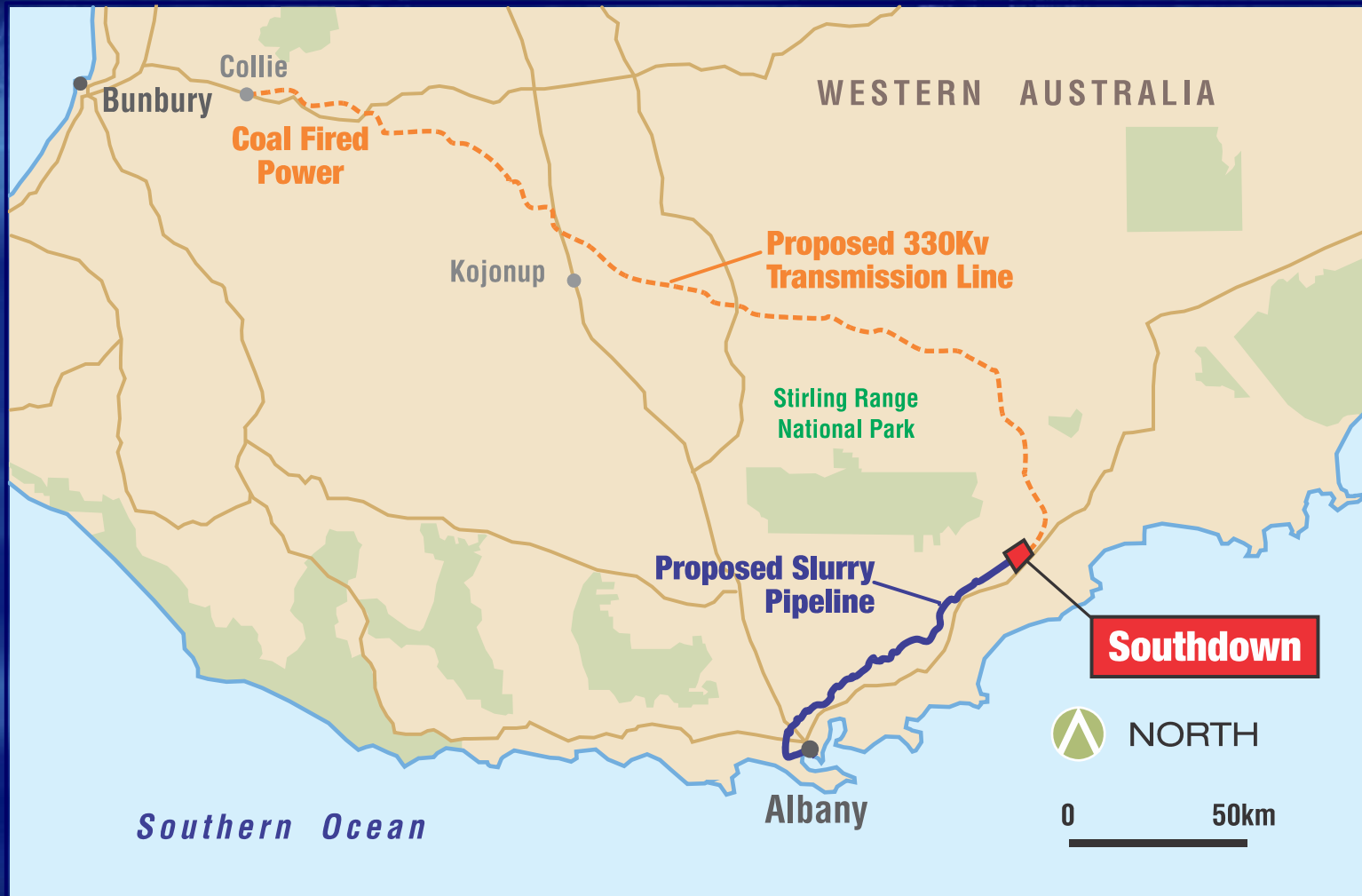
Ownership	<ul style="list-style-type: none"><li>Grange 70%, Sojitz Corporation 30%</li></ul>	 
Resources and Reserves <sup>1</sup>	<ul style="list-style-type: none"><li>Mineral Resource of 654Mt magnetite at 36.5% DTR<sup>1,2</sup></li><li>Ore Reserve of 388Mt magnetite at 35.5% DTR<sup>1,3</sup></li></ul>	
Production <sup>1</sup>	<ul style="list-style-type: none"><li>Targeting 10Mtpa magnetite concentrate for premium blast furnace pellets</li></ul>	
Capital Costs	<ul style="list-style-type: none"><li>Southdown Mine – A\$2,575 million (PFS)</li><li>Kemaman Pellet Plant – A\$941 million (PFS)</li></ul>	
Operating Costs	<ul style="list-style-type: none"><li>&lt;A\$60/t of concentrate (PFS)</li><li>&lt;A\$75/t of pellet (PFS)</li></ul>	
Mine Life	<ul style="list-style-type: none"><li>&gt;19 years (Potential for 40 years)</li></ul>	
Infrastructure	<ul style="list-style-type: none"><li>Established port, pipeline route, power easements, pellet plant site and deep water port in Malaysia</li></ul>	
Project Status	<ul style="list-style-type: none"><li>Pre feasibility study (+/- 20%) completed</li><li>Metallurgical testwork largely complete</li><li>Processing flow sheet finalised</li><li>Mining Permit issued, will be amended during 2011 for 10Mtpa; Port permit issued</li><li>Water Permit for desalination plant expected during 2011</li></ul>	

1. All figures presented on a 100% project basis 2. Southdown Magnetite Project Resource Upgrade (ASX 3 July 09) 3. July 2008 Southdown Reserve estimate

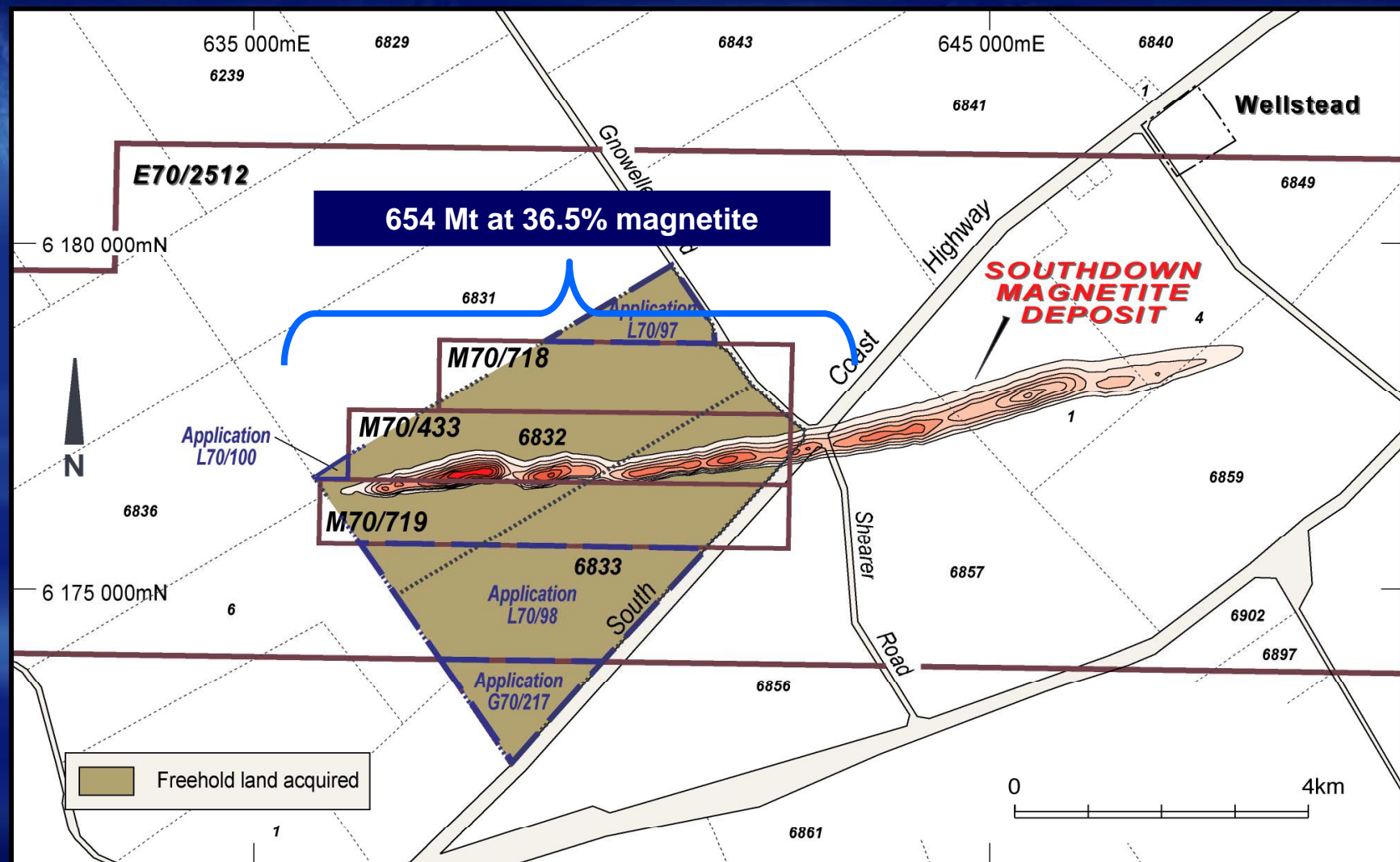
## Southdown Magnetite Project *PFS Highlights*

- Mine Capex, including infrastructure A\$2.57 billion;
- Operating costs per tonne of concentrate produced < A\$60 per tonne;
- Positive NPV with favourable IRR;
- Mine life of 19-40 years @10mtpa of concentrate;
- Definitive Feasibility Study (“DFS”) completion forecast for 1<sup>st</sup> quarter of 2012, fully funded;
- Initial production forecast for 2014;
- Pellet plant Capex of A\$941 million;
- Pelletising operating costs of < A\$75 per tonne ;

## Southdown Magnetite Project *Location Plan*



# Southdown Magnetite Project **Orebody**



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# Southdown Magnetite Project *Resources and Reserves*

## Mineral Resources

Classification	Measured	Indicated	Inferred	Total Resources
Tonnes (Mt)	219.7	210.3	224.4	654.4
DTC wt%	37.4	38.9	33.4	36.5
DTC Fe%	69.2	69.3	69.1	69.2
DTC SiO <sub>2</sub> %	1.72	1.94	2.07	1.91
DTC Al <sub>2</sub> O <sub>3</sub> %	1.43	1.27	1.29	1.33
DTC S%	0.46	0.40	0.54	0.46
DTC LOI%	-3.04	-3.06	-2.96	-3.02

*This Mineral Resource has been defined using geological boundaries and a cut-off grade of 10wt% DTC and includes minor internal dilution. All reported concentrate grades were weighted by DTC.*

## Reserves

Reserve Classification	ROM (Mt)	DTR%	Conc. (Mt)	Fe%	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	TiO <sub>2</sub> %	S%	P%
Probable	388	35.5	131	68.8	2.06	1.41	0.45	0.55	0.003

## Southdown Magnetite Project *Orebody Potential*

Details	PFS Case Western Resource	Short Term Potential Full Western Resource	Long Term Potential Western/Eastern Resource
Mine Life	19 years	21 years	40 years
Ore (million tonnes)	430	~575	~1,200
Ore Grade %DTR	37.7%	36.8%	36.5%
Concentrate (million tonnes)	158	~199	~375

### Note

- Short Term Potential Full Western Resource assumes that further drilling will move inferred resources to indicated resource and also add tonnage through deeper drilling.
- Long Term Potential Western/Eastern Resource assumes that further drilling in the eastern side of the magnetic anomaly will establish inferred resource which, following in fill drilling, will add indicated and measures resource

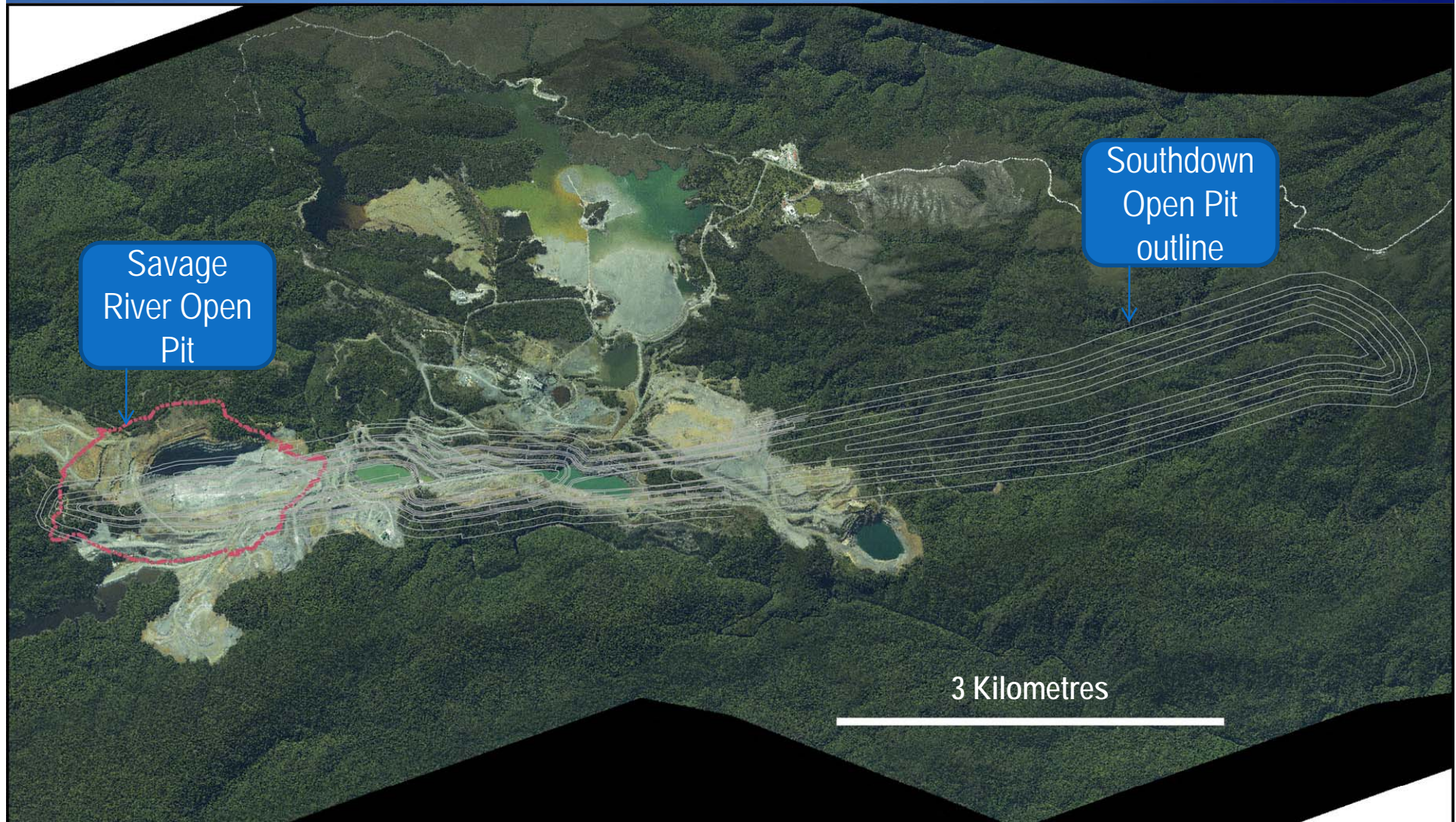
# Southdown Magnetite Project *Mining*

Mining Method	<ul style="list-style-type: none"><li>▪ Open pit mining</li><li>▪ Conventional bulk mining methods utilising hydraulic face shovels, dump trucks and drill and blast coupled to a Run of Mine (ROM) stockpile</li></ul>
Material Movement	<ul style="list-style-type: none"><li>▪ ~110 Mtpa for first six years</li></ul>
Equipment	<ul style="list-style-type: none"><li>▪ Shovel size – 650 tonnes</li><li>▪ Truck size – 220 tonnes</li></ul>
Production Schedule	<ul style="list-style-type: none"><li>▪ Provide 78,000 tonnes per day to the primary crusher</li></ul>
Waste : Ore Ratio	<ul style="list-style-type: none"><li>▪ 2.3 : 1 (tonnes)</li></ul>
Mine Life	<ul style="list-style-type: none"><li>▪ &gt;19 years (potential for 40 years)</li></ul>





# Southdown Magnetite Project **12 kilometre Monster Pit**

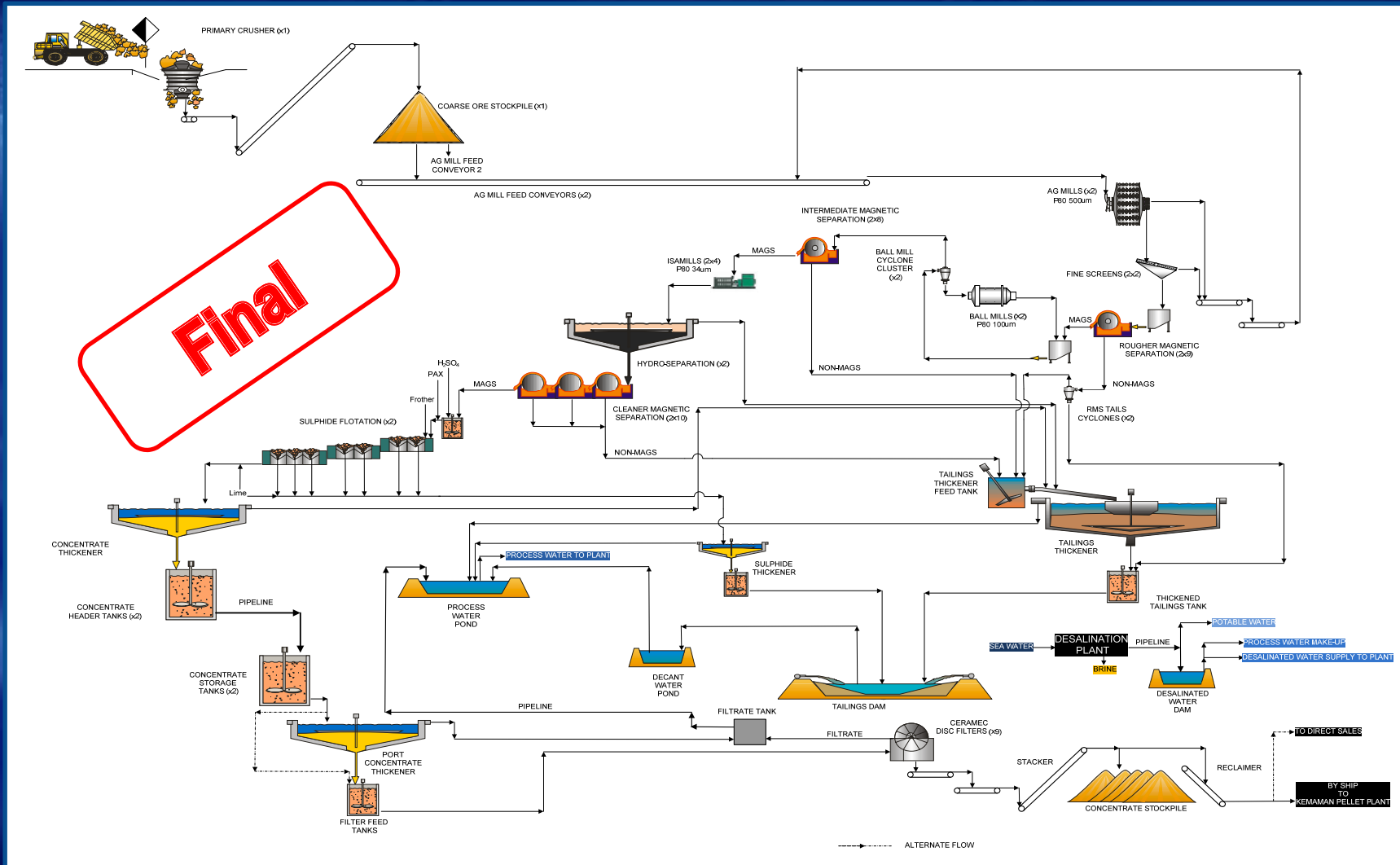


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# Southdown Magnetite Project **Concentrator Flow Sheet**



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## Southdown Magnetite Project *Product Quality*

Southdown Magnetite Concentrate	%
Total Fe	68.9
SiO <sub>2</sub>	1.56
Al <sub>2</sub> O <sub>3</sub>	1.45
CaO	0.11
MgO	0.16
TiO <sub>2</sub>	0.38
P	0.04
S	0.08
LOI (Loss of ignition)	-3.18

Southdown Iron Ore Pellets	%
Total Fe	67
B2	0.54
SiO <sub>2</sub> +Al <sub>2</sub> O <sub>3</sub> +TiO <sub>2</sub>	3.31
P	<0.01
S	0.01

# Southdown Magnetite Project *Power and Pipelines*

## *Key Facts - Power:*

Estimated Length	▪ 288km	Capital Cost	▪ A\$272 million
Capacity	▪ 330kV transmission line	Status	▪ Ongoing discussions with Western Power

## *Key Facts – Pipeline:*

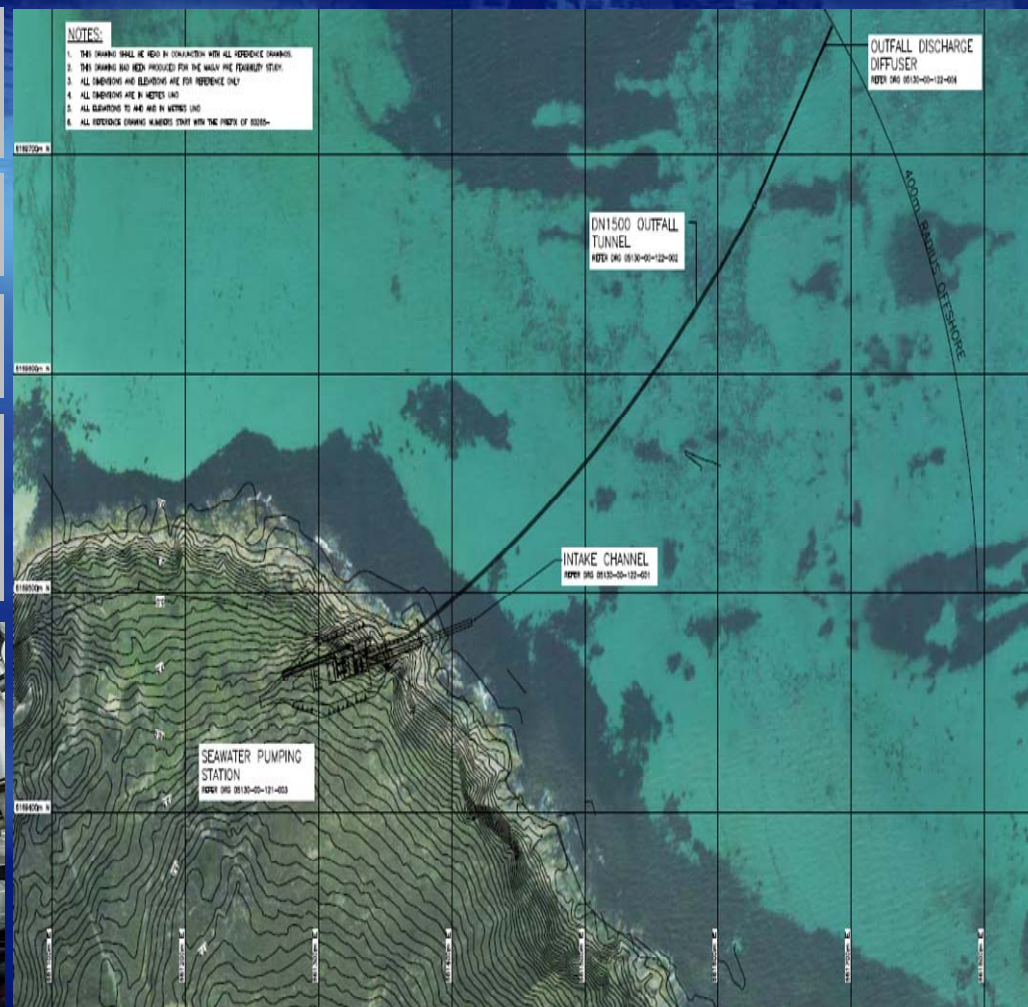
Estimated Length	▪ 100km (1.5 metres deep)
Capacity	▪ Line Volume – 18,000m <sup>3</sup>
Transport Time	▪ 17 hours
Capital cost	▪ A\$174 million
Other	▪ Return water supply to Southdown Mine





# Southdown Magnetite Project *Water Supply*

Source	<ul style="list-style-type: none"> <li>Seawater reverse osmosis desalination plant</li> </ul>
Capacity	<ul style="list-style-type: none"> <li>10GL/a</li> </ul>
Capital cost	<ul style="list-style-type: none"> <li>A\$170 million</li> </ul>
Location	<ul style="list-style-type: none"> <li>Coastal location 25km from mine and pumped to the mine site after treatment</li> </ul>



# Southdown Magnetite Project *Albany Port Infrastructure*

## Vessels

- Cape size (18m draft)

## Activities

- Deepen; widen and extend existing shipping channel
- New wharf
- Filtration plant and storage shed

## Area Reclaimed

- 9ha
- Increases port capacity from 2.5Mt to 14Mt

## Capital cost

- A\$350 million



New Berth Location



## Southdown Magnetite Project *Environmental Permits*



Mine Environmental permit



Granted November 2009, amendment required in 2011 for 10mtpa



Port permits



Granted November 2010



Water permit



Desalination permit expected in 2011



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## Southdown Magnetite Project *PFS Capital Expenditure*

SOUTHDOWN CAPITAL EXPENDITURE	A\$m
Mine <sup>(1)</sup>	560
Concentrator	850
Slurry Pipeline	200
Transmission Line	320
Desalination and Water Supply	200
Albany Concentrate Filtration and Storage	20
Port of Albany	400
Allowances for Provisional Sums	25
Total Costs <sup>(2)</sup> - Australian Operations	2,575
<sup>(2)</sup> Includes EPCM, Owners Costs, Estimate Accuracy and Project Contingency	

## Southdown Project *Australia - Malaysia*



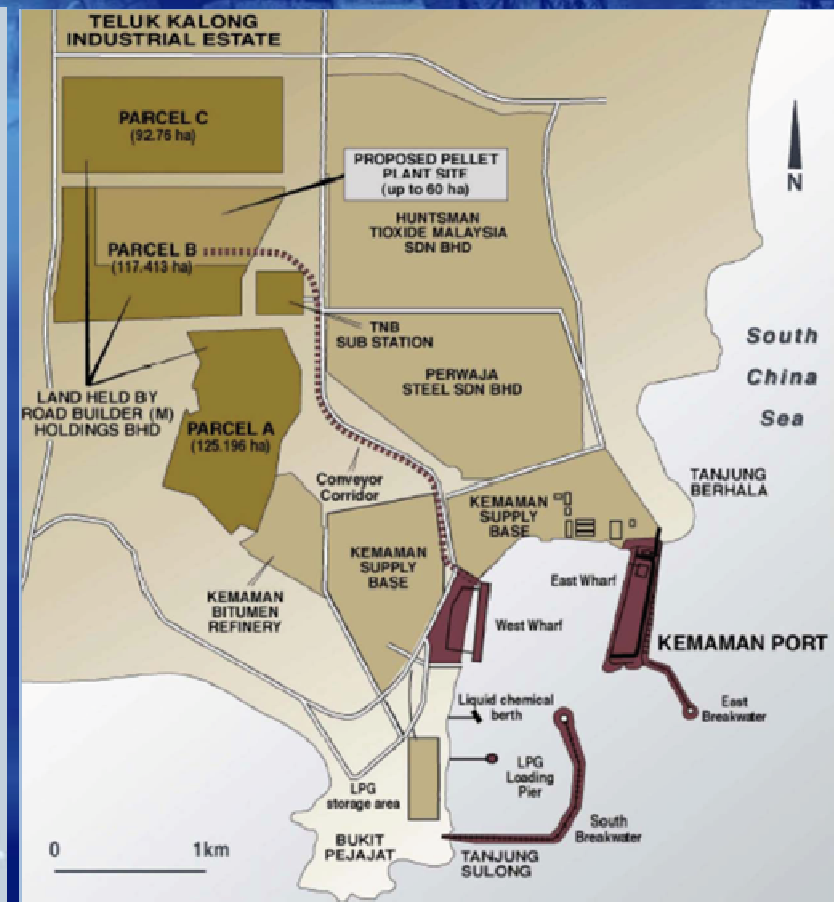
4. Pellet Plant (7Mtpa)

3. Concentrate shipped (10Mtpa)

2. 100km slurry pipeline to Albany Port

1. Mine and concentrator targeting 10Mtpa of concentrate production for over 25 years

# The Kemaman Pellet Plant *Location Plan*





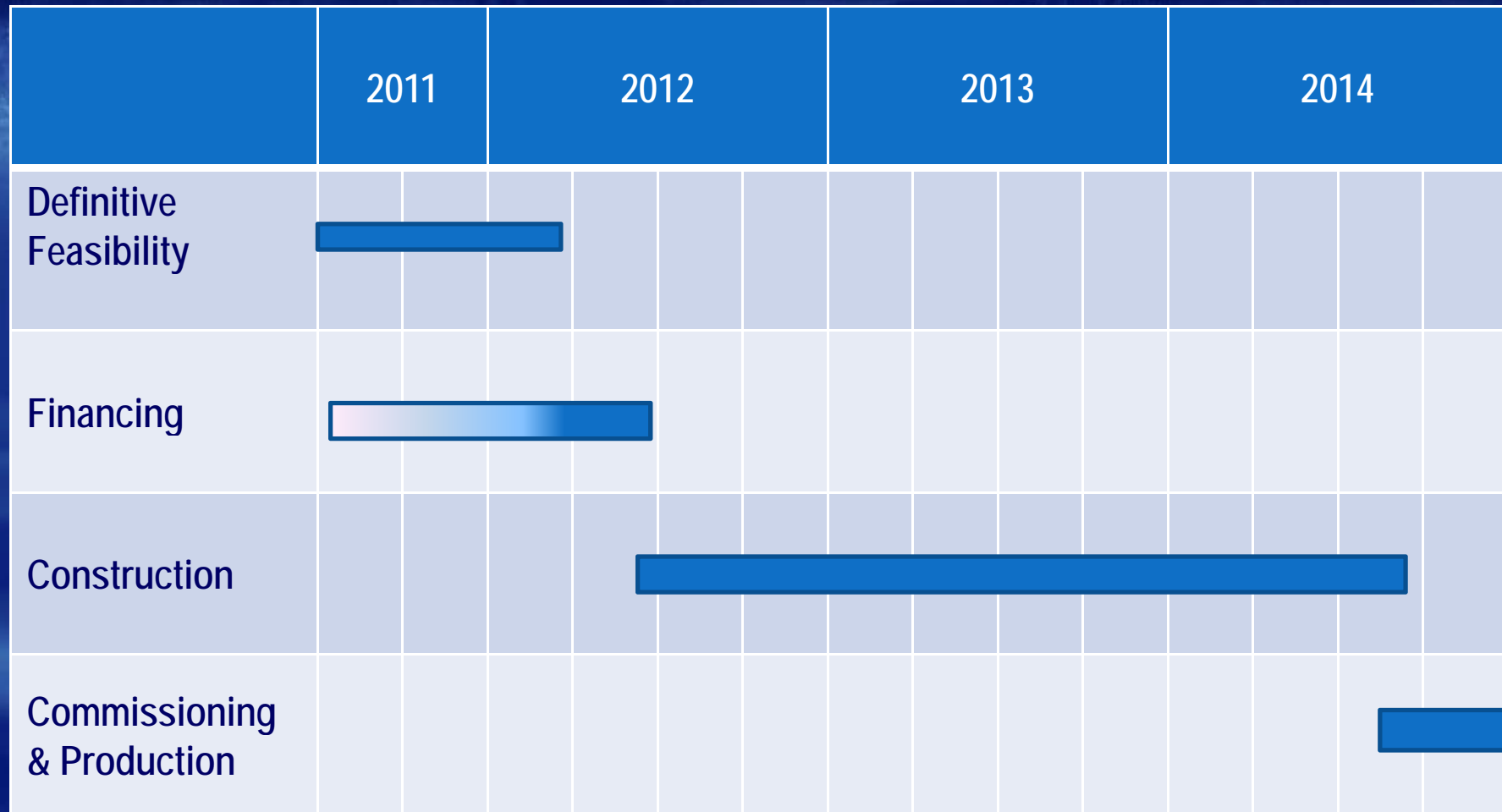
## Kemaman Project *PFS Capital Expenditure*

KEMAMAN	A\$m
Pellet Plant	640
Kemaman Port Facilities and Materials Handling	300
Allowances for Provisional Sums	1
<b>Total Costs <sup>(2)</sup> – Malaysian Operations</b>	<b>941</b>
<sup>(2)</sup> Includes EPCM, Owners Costs, Estimate Accuracy and Project Contingency	

## Southdown Project *PFS Operating Cost Summary*

	Unit Rates
Cost per tonne of concentrate produced	<A\$60
Cost per tonne of pellets produced	<A\$75
<sup>(1)</sup> Excludes WA Mineral Royalty	

# Forecast Project Schedule





## Southdown Magnetite Project *PFS Highlights*

*Why is this project different to other magnetite projects being built?*

- Grange's cashflow, extensive operating experience and existing IP dramatically reduces execution risk,
- The project is well advanced:
  - Major permits for the mine and port are in place;
  - Land tenure is largely secure;
  - Metallurgical test work is well advanced;
  - Power line easements are established and permitted;

# Resources and Reserves 2011

## Supporting Long Mine Lives

### Mineral Resources (inclusive of reserves)

	Tonnes (Mt)	Grade (%DTR)
<b>Savage River <sup>4</sup></b>		
Measured	81	54.2
Indicated	132	53.5
Inferred	87	48.8
<b>Total</b>	<b>300</b>	<b>52.3</b>
<b>Southdown <sup>1</sup></b>		
Measured	220	37.4
Indicated	210	38.9
Inferred	224	33.4
<b>Total</b>	<b>654</b>	<b>36.5</b>
<b>PROJECTS TOTAL</b>	<b>954</b>	<b>41.5</b>
<b>ATTRIBUTABLE RESOURCES <sup>3</sup></b>	<b>757</b>	<b>42.7</b>

- Additional growth potential through exploration assets
- E70/2512 – eastern 6km extension of Southdown Deposit not yet fully drilled
- Long Plains – magnetite deposit located near Savage River

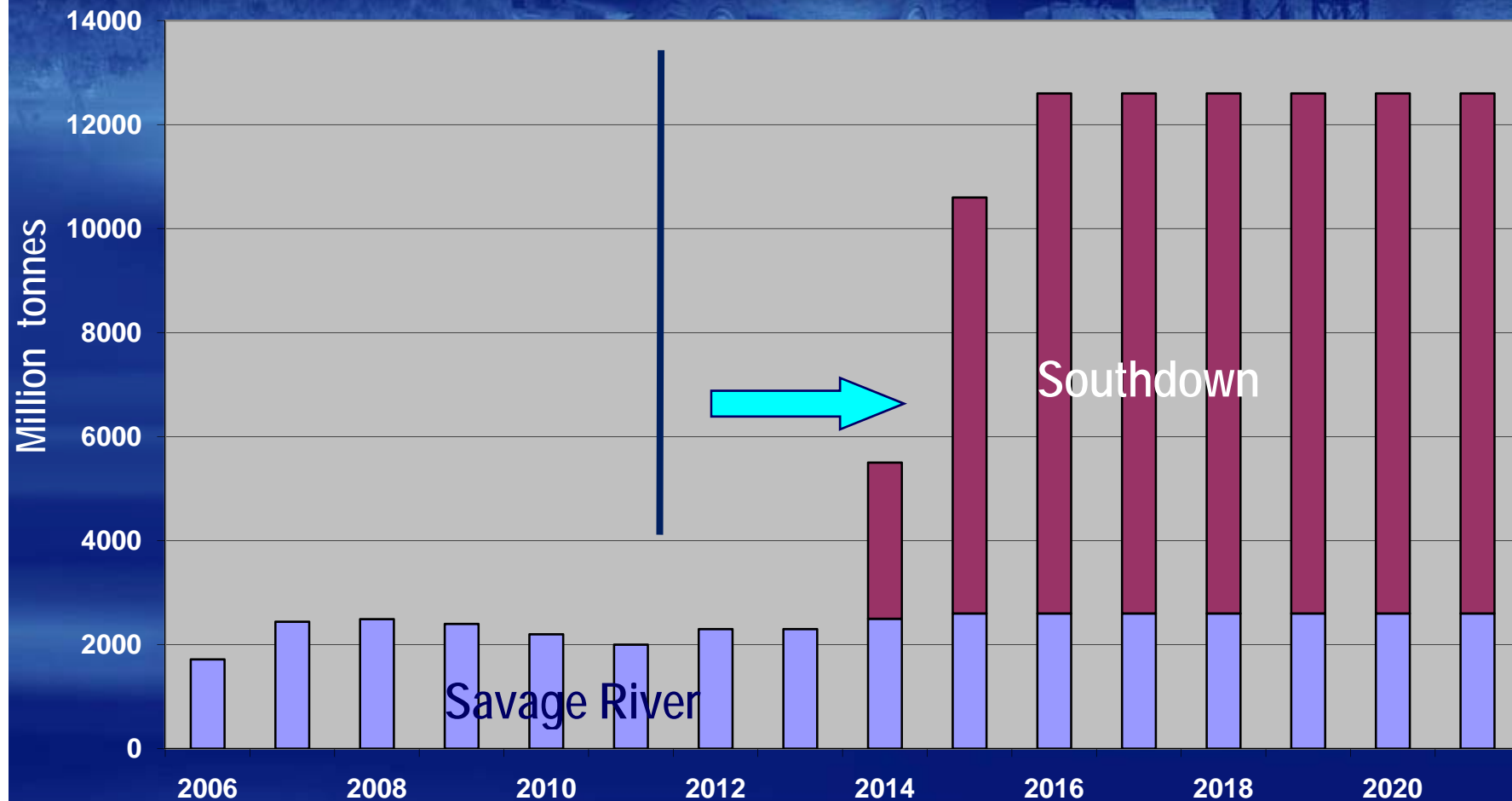
### Ore Reserves

	Tonnes (Mt)	Grade (%DTR)
<b>Savage River</b>		
Proved	48	51.6
Probable	66	51.4
<b>Total</b>	<b>114</b>	<b>51.5</b>
<b>Southdown <sup>2</sup></b>		
Probable	388	35.5
<b>Total</b>	<b>388</b>	<b>35.5</b>
<b>PROJECTS TOTAL</b>	<b>502</b>	<b>39.1</b>
<b>ATTRIBUTABLE RESERVES <sup>3</sup></b>	<b>385</b>	<b>40.2</b>

Notes:

1. Southdown Magnetite Project Resource Upgrade (ASX 3 July 09) – Refer to Appendix A
2. July 2008 Southdown reserve estimate – Refer to Appendix A
3. Adjusted for 70% ownership of Southdown
4. Refer to Appendix B

# Production growth prospects



*(Southdown production includes Sojitz 30% share)*



# Current Focus *and* Future Milestones



- Position Savage River for long term sustainable production:
  - Replacement ball mill installed February 2011
  - Replacement AG mill purchased
  - Trucking fleet re-build completed
  - Completing east wall cut back
- Generation of cash at Savage River for local projects and Southdown DFS
- Fast Tracking Southdown
  - PFS finalised and undertaking DFS in 2011
  - Finalise water permit
  - Progressing financing

*Today, Grange has no net debt and is totally exposed to the strong iron ore price.*

# Summary

- Australia's leading magnetite & iron ore pellet producer
- Solid investor, customer and revenue base
- Extensive magnetite technical and operational expertise
- Strong balance sheet and strong cashflow forecasts
- Healthy mix of Cornerstone, Institutional and Retail investors
- Increased shareholders, liquidity & market capitalisation
- Broad research coverage
- ASX 300
- Southdown project being accelerated, DFS approved & fully funded

# Key Contacts

Primary contacts:

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**Russell Clark**

*Managing Director & Chief Executive Officer*

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# Competent Person Statement

## Southdown Project

*The information in this presentation which relates to the Mineral Resources of the Southdown Project is based on information compiled by James Farrell who is a full-time employee of Golder Associates Pty Ltd and a Member of the Australasian Institute of Mining and Metallurgy. James Farrell has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity for which he is undertaking to qualify as a Competent Person as defined in the JORC Code (2004). James Farrell consents to the inclusion of this information in this presentation in the form and context in which it appears.*

*The information in this presentation which relates to the Ore Reserves of the Southdown Project is based on information compiled by Mr Ross Bertinshaw who is a full-time employee of Golder Associates Pty Ltd and a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Bertinshaw has sufficient experience in Ore Reserve estimation relevant to the style of mineralisation and type of deposit under consideration and to the activity for which he is undertaking to qualify as a Competent Person as defined in the JORC Code (2004). Mr Bertinshaw consents to the inclusion in this presentation of the matters based on his information in the form and context in which it appears.*

## Savage River Project

*The information in this presentation that relates to Mineral Resources or Ore Reserves in relation to the Savage River Project is based on information compiled by Mr Ben Maynard, who is a Member of The Australasian Institute of Mining and is a full time employee of Grange Resources. Mr Maynard has sufficient experience which is 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 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Maynard consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

# Appendix A – Southdown Project

## Mineral Resource Estimate

Classification	Measured Resources	Indicated Resources	Inferred Resources	Total Resources
Tonnes (Mt)	219.7	210.3	224.4	654.4
DTC wt%	37.4	38.9	33.4	36.5
DTC Fe%	69.2	69.3	69.1	69.2
DTC SiO <sub>2</sub> %	1.72	1.94	2.07	1.91
DTC Al <sub>2</sub> O <sub>3</sub> %	1.43	1.27	1.29	1.33
DTC S%	0.46	0.40	0.54	0.46
DTC LOI%	-3.04	-3.06	-2.96	-3.02

*This Mineral Resource has been defined using geological boundaries and a cut-off grade of 10 wt% DTC and includes minor internal dilution. All reported concentrate grades were weighted by DTC.*

## Ore Reserves within Designed Pit (Cut-off 10% DTR)

Reserve Classification	ROM (Mt)	DTR%	Conc. (Mt)	Fe%	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	TiO <sub>2</sub> %	S%	P%
Probable	388	35.5	131	68.8	2.06	1.41	0.45	0.55	0.003

# Appendix B – Savage River

## Mineral Resource and Ore Reserve Estimates

Mineral Resource	Tonnes (Mt)	Grade (%DTR)
Savage-River Total		
Measured	86.4	54
Indicated	131.9	53
Inferred	87.8	49
Total	306.0	52

Ore Reserve	Tonnes (Mt)	Grade (%DTR)
Savage-River Total		
Proved	50.6	51
Probable	67.9	51
Total	118.5	51

*Mineral Resources and Ore Reserves have been estimated for Grange Resources Tasmania Savage River magnetite deposit at the end of May 2010.*

## Qualifying Statements

The Measured and Indicated Mineral Resources are inclusive of those Mineral Resources modified to produce the Ore Reserves. The Inferred Mineral Resources are, by definition, additional to the Ore Reserves.

A lower cut-off grade of 15% DTR was used in the calculation of both the Mineral Resources and Ore Reserves.

The Ore Reserve was calculated using a 1.087 dilution factor and a mining recovery factor of 0.939. These factors are based on periodic reconciliation specific to mining areas.