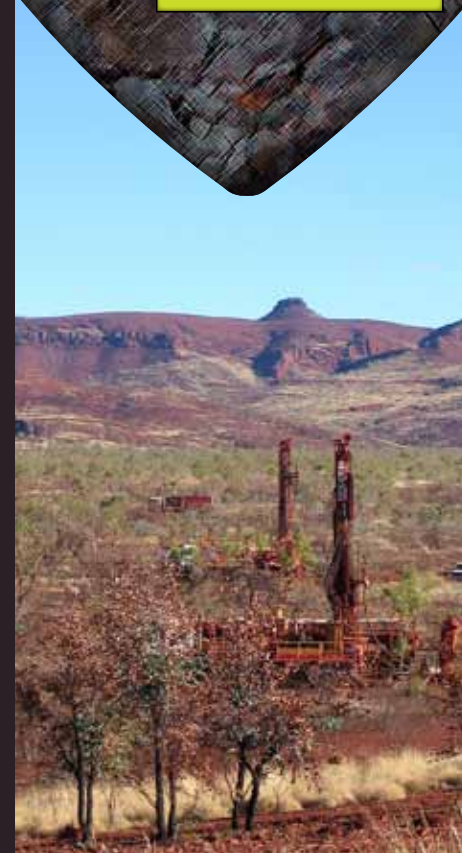


FLINDERS

**MINES**

# Flinders Mines

Gary Sutherland – Acting CEO



# Compliance statements

## Disclaimer

This presentation contains forward looking statements that are subject to risk factors associated with the exploration and mining industry.

It is believed that the expectations reflected in these statements are reasonable, but they may be affected by a variety of variables which could cause actual results or trends to differ materially.

## Exploration Targets

Exploration Targets are reported according to Clause 18 of the JORC Code. This means that the potential quantity and grade is conceptual in nature and that considerable further exploration, particularly drilling, is necessary before any Identified Mineral Resource can be reported. It is uncertain if further exploration will lead to a larger, smaller or any Mineral Resource.

## Competent Person

The information in this report that relates to Exploration Results, Mineral Resources and Ore Reserves is based on information compiled by Mr N Corlis (who is a member of the Australian Institute of Geoscientists). Mr Corlis is an employee of Flinders Mines Limited. He has sufficient experience that is relevant to the style of mineralisation and types of deposit under consideration and consent to inclusion of the information in this report in the form and context in which it appears. Mr Corlis qualifies as a Competent Person as defined in the 2004 Edition of the "Australasian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves".

# Corporate



Shares on issue 1,820 million

Shareholders 13,019

Now included in S&P/ASX 300 Metals and Mining Index  
ASX Emerging Companies Index

**Recent trading** 9.9.2010

Shares 13.5 cents

**Market capitalisation**

\$246 million

**Cash in hand**

\$50.8 million

Share price and volume



**Top 20 shareholders hold 27.1% (494M shares)**



# Executive team



Gary  
Sutherland  
Acting CEO



Nick  
Corlis  
Exploration  
Manager



David  
Godfrey  
Chief  
Financial  
Officer



Mick  
Anstey  
Manager  
HSE & Risk



Mark  
Watson  
Manager  
Project  
Services



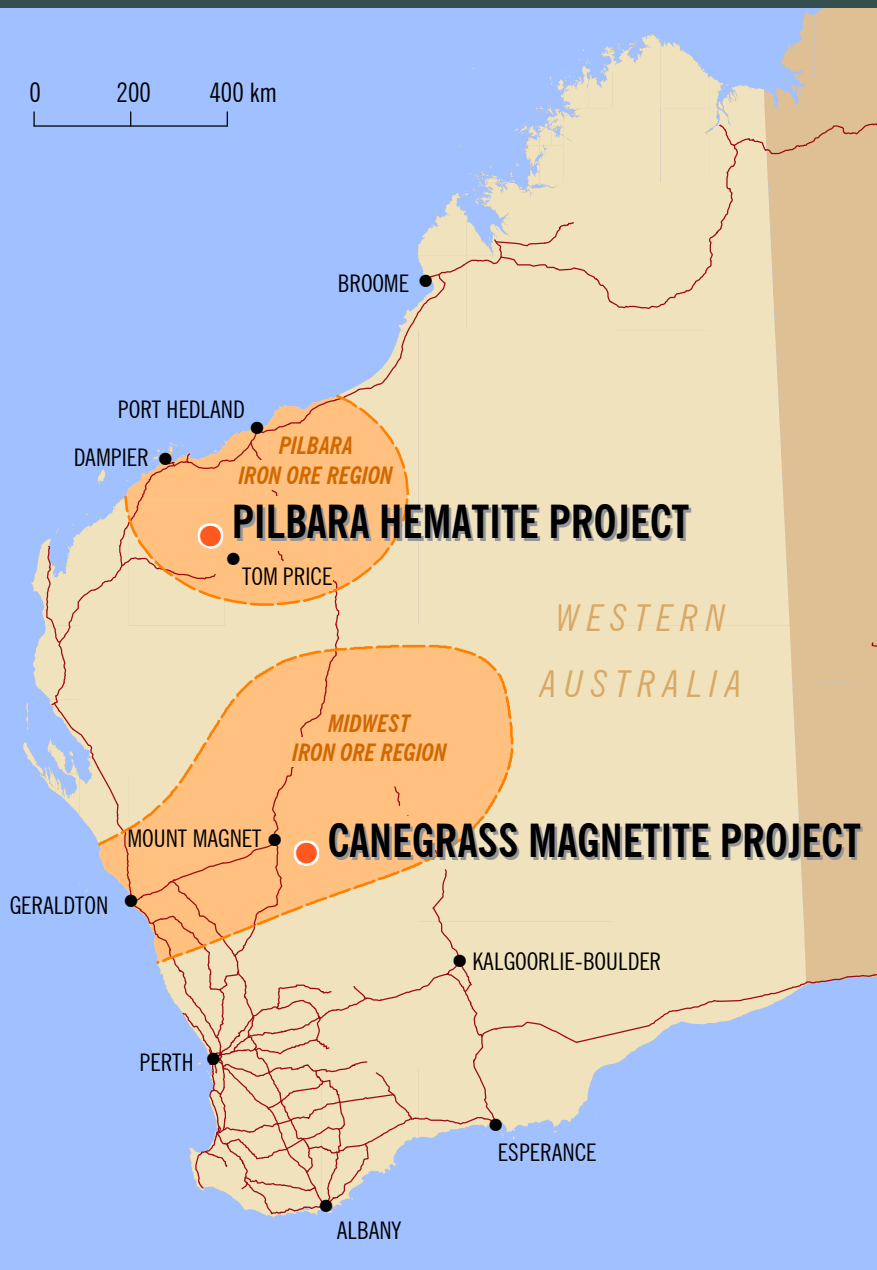
Miro  
Rapaic  
Manager  
Mining –  
Development  
Projects

# Highlights



- Pilbara 658Mt iron ore Indicated and Inferred Global Resource at 55.4% iron
- 348Mt at 57.4% Fe, 6.3% SiO<sub>2</sub>, 3.9% Al<sub>2</sub>O<sub>3</sub>, 0.09% P, 6.9% LOI – potentially saleable resource with minor beneficiation
- Metallurgical beneficiation testwork, and mining studies underway (suggesting low cost mining)
- WorleyParsons undertaking Prefeasibility Study (PFS)
- Several short and long-term infrastructure options due to location and Pilbara developments e.g. WA Government recently backed new multiuser port at Anketell
- Focussing on iron only by moving non-iron assets through an IPO to Flinders Exploration Limited (FEX)
- Canegrass Project – inferred drilling and scoping study commenced

# Location of projects



## Two significant iron ore projects

### Pilbara

- 175km south of Dampier
- 658Mt Indicated and Inferred Resource
- Detrital Iron Deposit (DID) and Brockman Iron Deposit (BID)
- Prefeasibility in progress

### Pilbara

Drilling - June 2010



### Canegrass

- 370km east of Geraldton
- Scoping Study commenced

### Canegrass

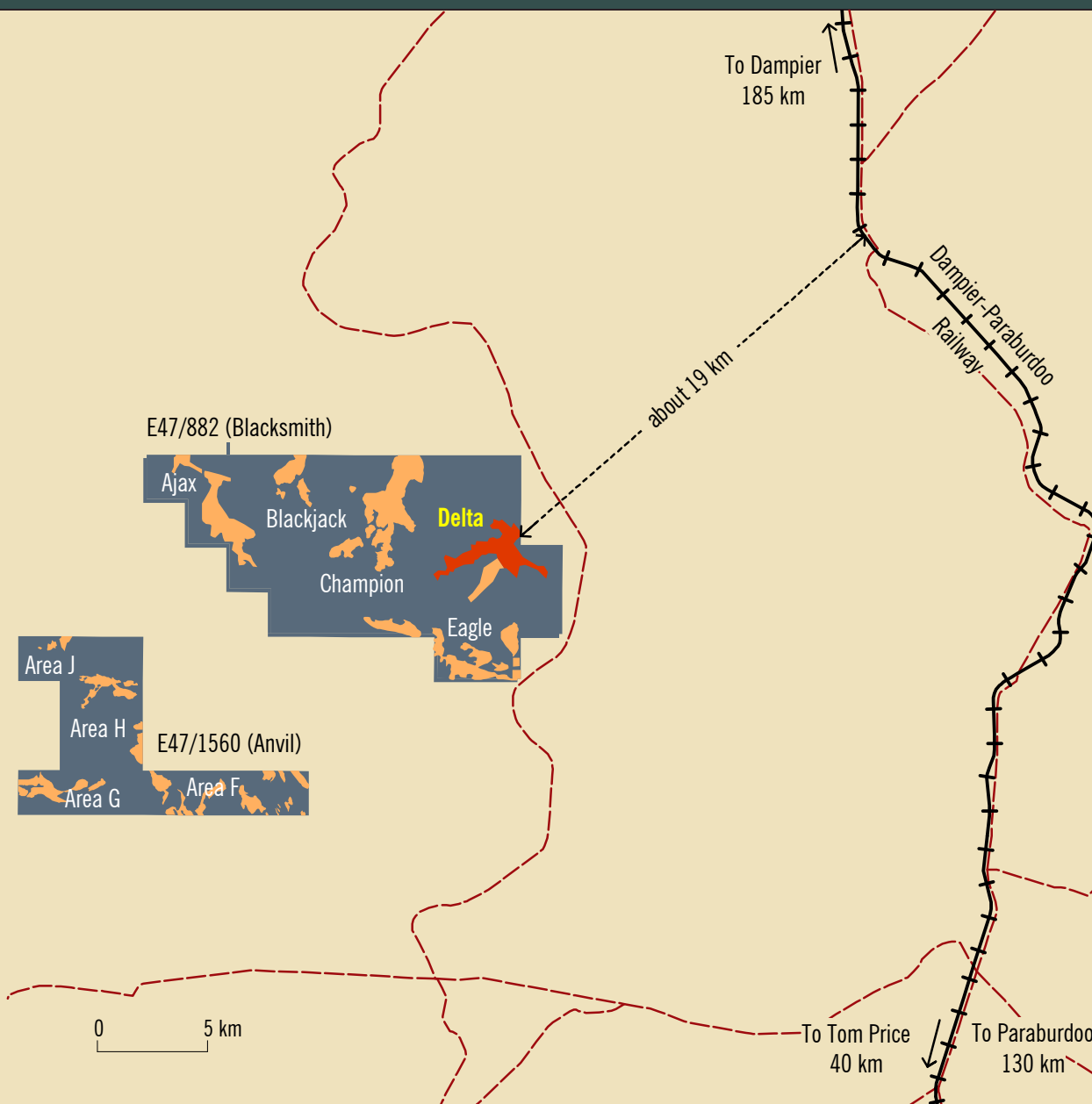
Inspecting drill core



## Company making potential



# Pilbara Iron Ore Project (PIOP)



- Global Resource 658Mt

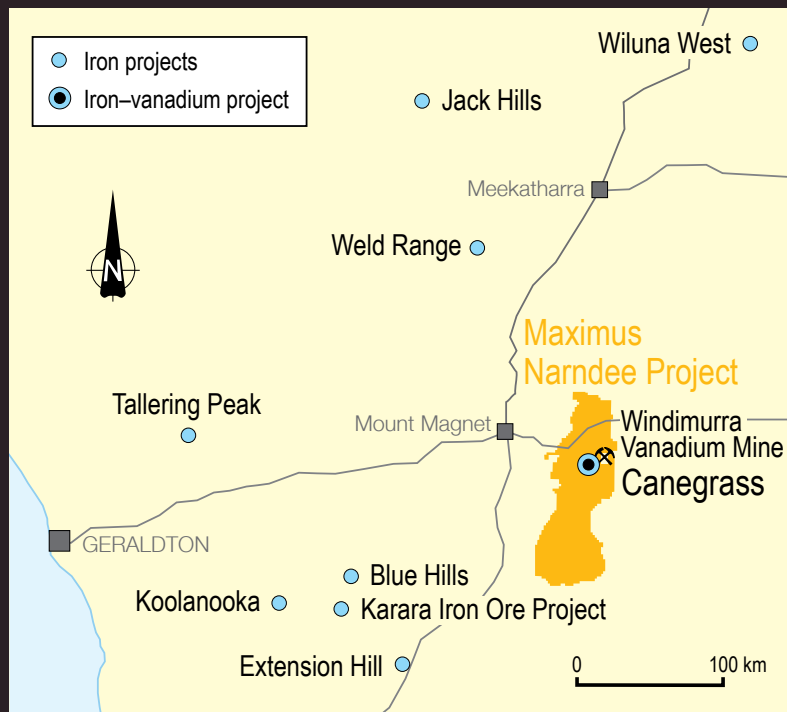
## Blacksmith

- Five deposits, 576Mt (Inferred and Indicated) Resource
  - Ajax, Blackjack, Champion, Delta, Eagle
- Scoping Study focus on Delta – highest grade/lowest stripping ratios
- 19km from Dampier–Paraburdoo railway (RIO)

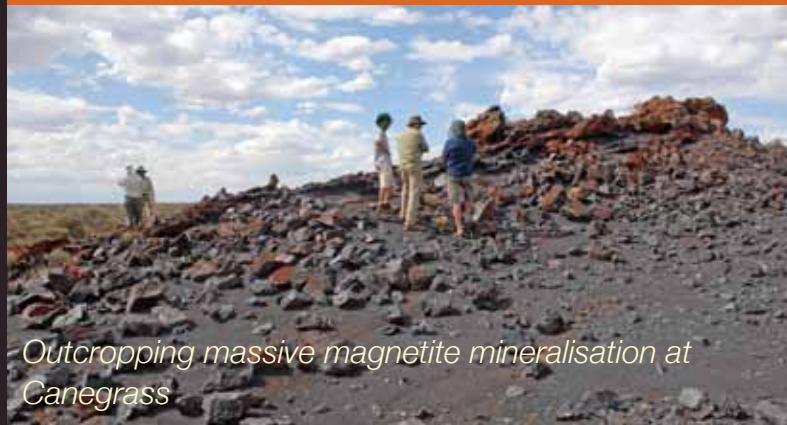
## Anvil

- Total 82Mt Inferred Resource

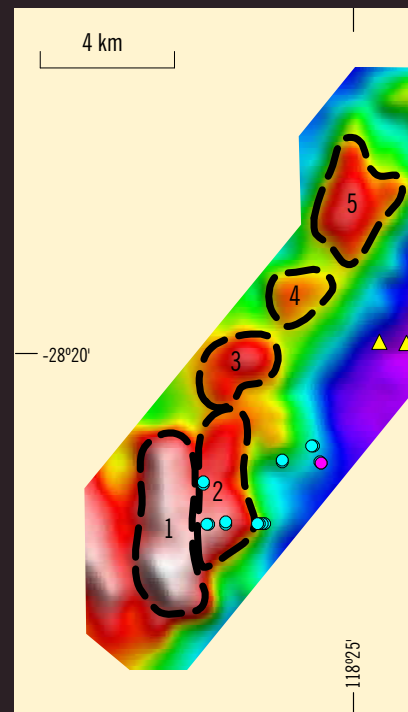
# Midwest – Canegrass Project



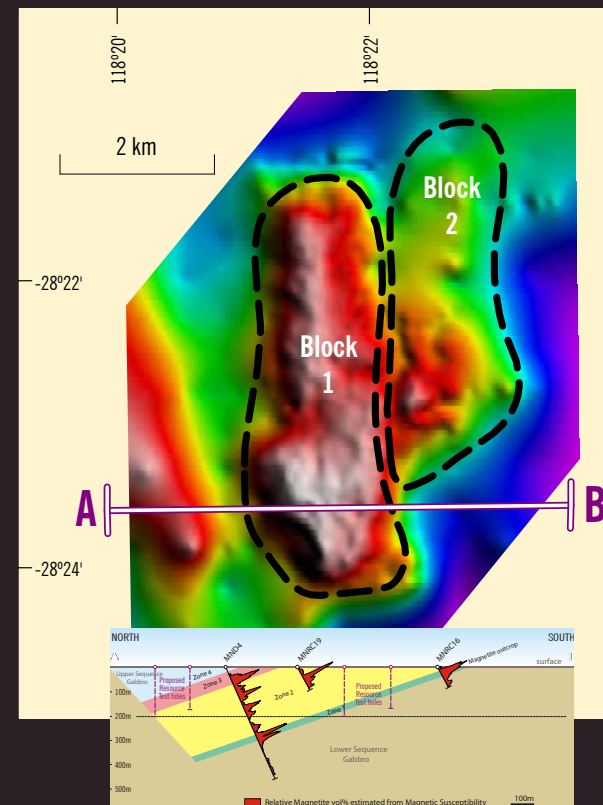
## Mid West Iron Ore Province



Outcropping massive magnetite mineralisation at Canegrass



Detailed Gravity Survey image of Canegrass showing anomalous blocks and previous exploration drilling

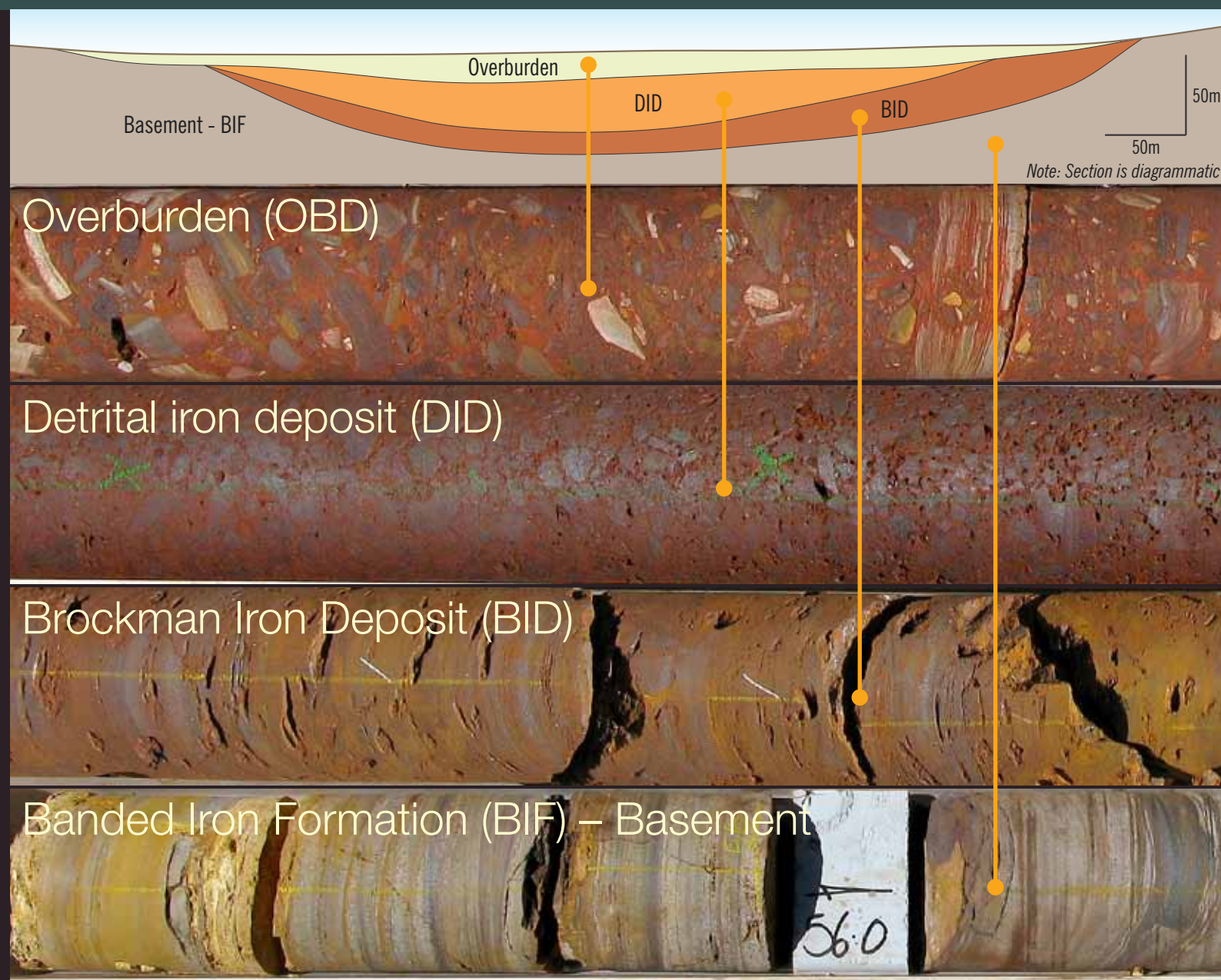


Gravity image of Blocks 1 and 2 with modelled line shown.

- Gabbro hosted magnetite
- Inferred Resource drilling 3<sup>rd</sup> quarter 2010



# PIOP – Key rock types



Waste

Ore

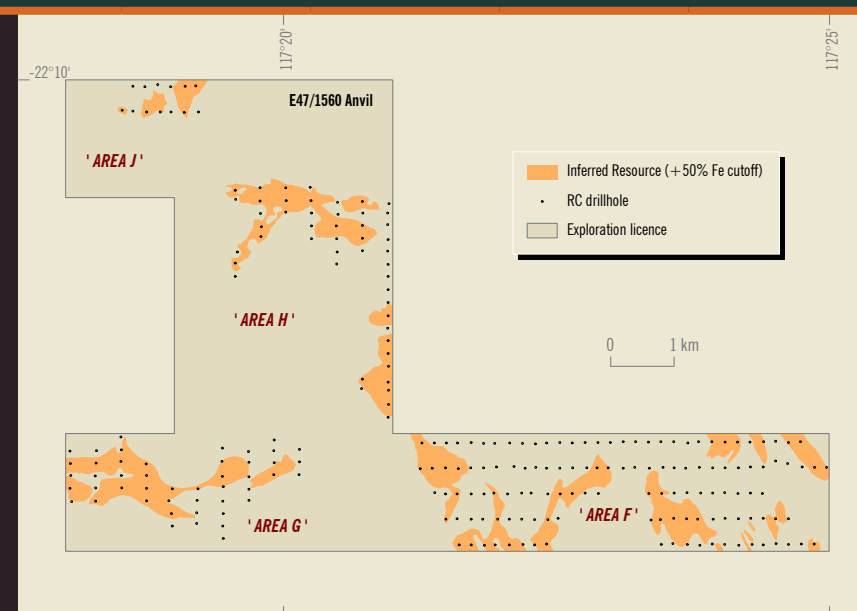
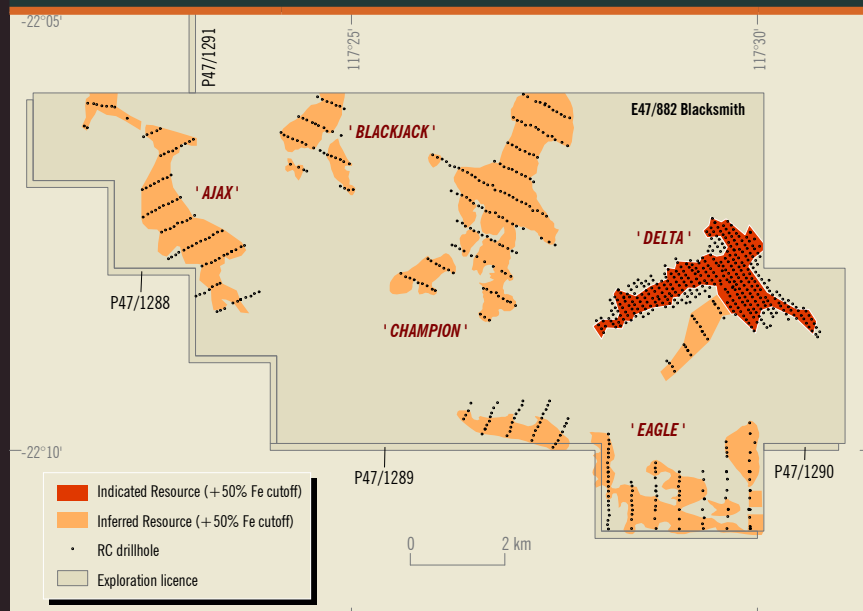
Ore

Waste

# Global Resource



|                     | JORC Classification           | Tonnage (Mt) | Fe (%)      | SiO <sub>2</sub> (%) | Al <sub>2</sub> O <sub>3</sub> (%) | P (%)       | LOI (%)    |
|---------------------|-------------------------------|--------------|-------------|----------------------|------------------------------------|-------------|------------|
| Ajax                | Inferred                      | 68.5         | 55.2        | 10.6                 | 5.0                                | 0.06        | 4.5        |
| Blackjack           | Inferred                      | 44.8         | 55.3        | 12.8                 | 4.6                                | 0.06        | 2.7        |
| Champion            | Inferred                      | 134.7        | 54.8        | 10.8                 | 5.0                                | 0.07        | 4.8        |
| Delta               | Inferred                      | 30.5         | 56.4        | 8.7                  | 4.5                                | 0.07        | 5.1        |
| Delta               | Indicated                     | 156.6        | 56.5        | 8.9                  | 4.5                                | 0.08        | 4.8        |
| Eagle               | Inferred                      | 140.9        | 55.4        | 8.9                  | 4.8                                | 0.07        | 6.5        |
| Anvil               | Inferred                      | 82.4         | 53.6        | 11.4                 | 5.8                                | 0.05        | 4.9        |
| <b>Global Total</b> | <b>Indicated and Inferred</b> | <b>658.3</b> | <b>55.4</b> | <b>10.0</b>          | <b>4.9</b>                         | <b>0.07</b> | <b>5.0</b> |



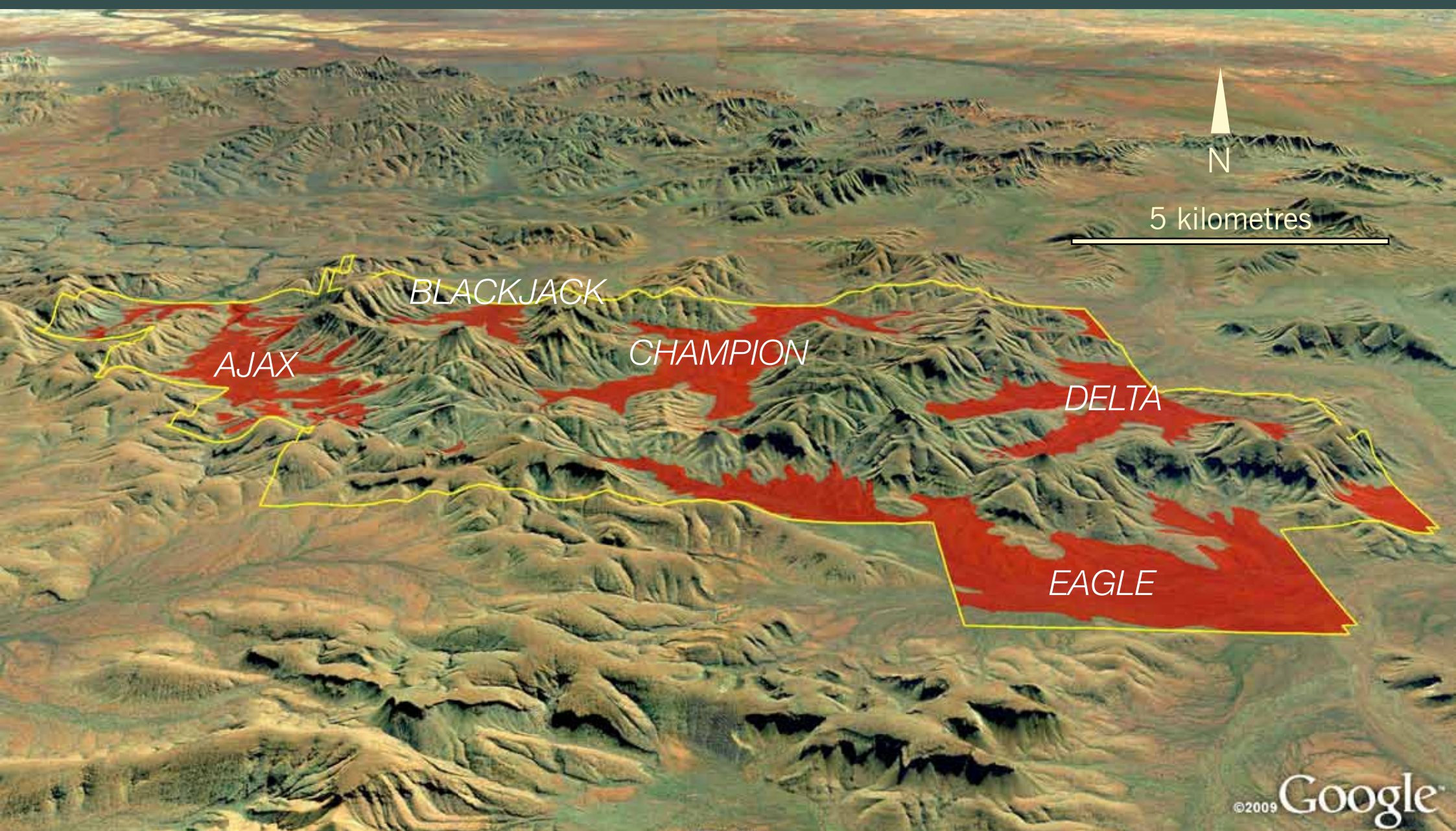


# Higher Grade Resource

| JORC Classification                                                     | Iron Grade Cut-off % | Tonnage Mt   | Fe %        | SiO <sub>2</sub> % | Al <sub>2</sub> O <sub>3</sub> % | P %         | LOI %      |
|-------------------------------------------------------------------------|----------------------|--------------|-------------|--------------------|----------------------------------|-------------|------------|
| Delta BID Indicated                                                     | +50                  | 49.8         | 57.7        | 4.4                | 2.9                              | 0.13        | 9.3        |
| PIOP BID Inferred                                                       | +50                  | 156.7        | 55.8        | 6.6                | 3.4                              | 0.10        | 9.7        |
| TOTAL BID<br>(Indicated & Inferred)                                     | +50                  | 206.6        | 56.3        | 6.0                | 3.3                              | 0.11        | 9.6        |
| Delta Lower DID Indicated                                               | +50                  | 43.3         | 59.8        | 6.1                | 4.4                              | 0.07        | 3.0        |
| PIOP Lower DID Inferred                                                 | +50                  | 97.8         | 58.7        | 6.9                | 4.8                              | 0.06        | 3.2        |
| TOTAL LOWER DID<br>(Indicated & Inferred)                               | +50                  | 141.1        | 59.0        | 6.6                | 4.7                              | 0.06        | 3.1        |
| <b>COMBINED TOTAL<br/>LOWER DID &amp; BID</b><br>(Indicated & Inferred) | <b>+50</b>           | <b>347.7</b> | <b>57.4</b> | <b>6.3</b>         | <b>3.9</b>                       | <b>0.09</b> | <b>6.9</b> |



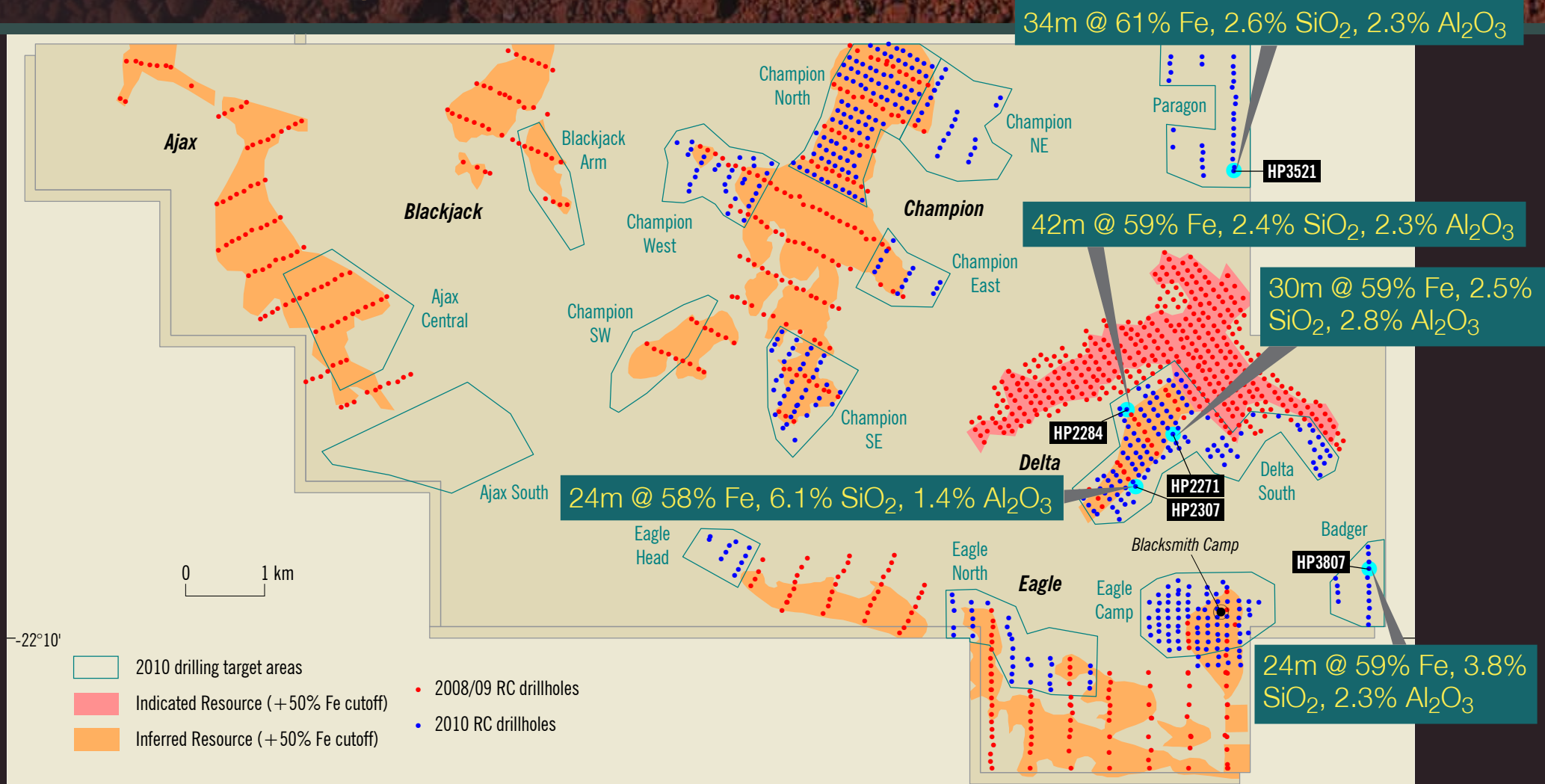
# Google Earth – Blacksmith tenement





# 2010 drilling campaign

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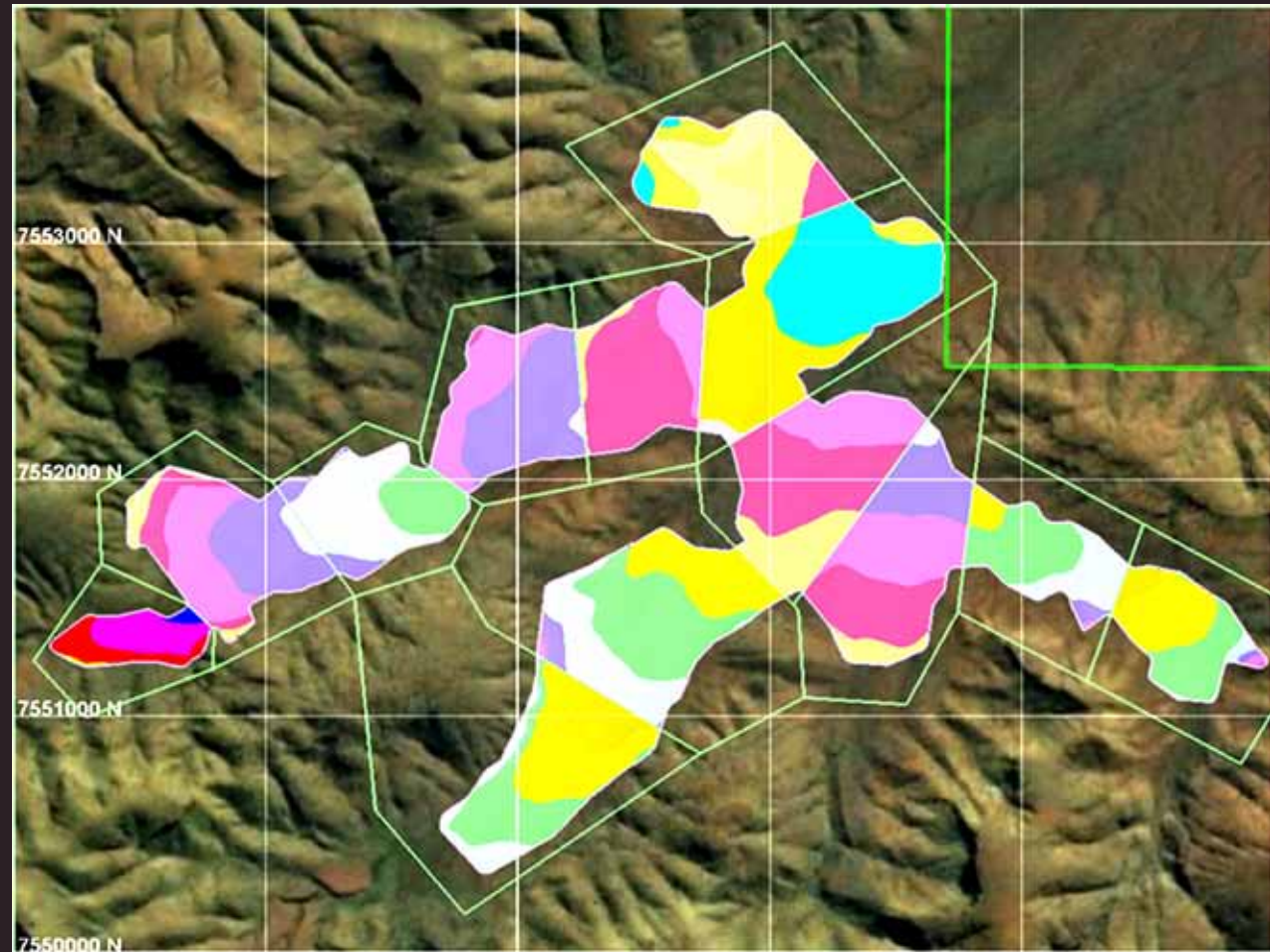


- First phase of 2010 drilling completed – 493 holes for 21,705 metres
- Total of 1,545 holes for 73,640 metres
- Significant new intersections
- Not included in Global Resource (Q4 2010)

# Delta – Mining



- Open pit operation
- Mining generally above water table
- Relatively low stripping ratios
- Minimal drill/blast
- Proximity to existing infrastructure



*Conceptual mining stages*



# Metallurgical testwork



## Phase 1

- All ores showed low Abrasive Index (Ai), Crushing Index (CWi) and Compressive Strength (UCS), consistent SG compared with typical iron ore deposits in the Pilbara region
- DID requires some beneficiation
- BID potential for Direct Shipping Ore (DSO)
- Geomet model developed

## Phase 2

- Lump characterisation
- Sintering testwork on DID and BID
- Gravity separation
- Dry screening vs wet screening
- DID alumina and silica rejection





# Approvals and environment



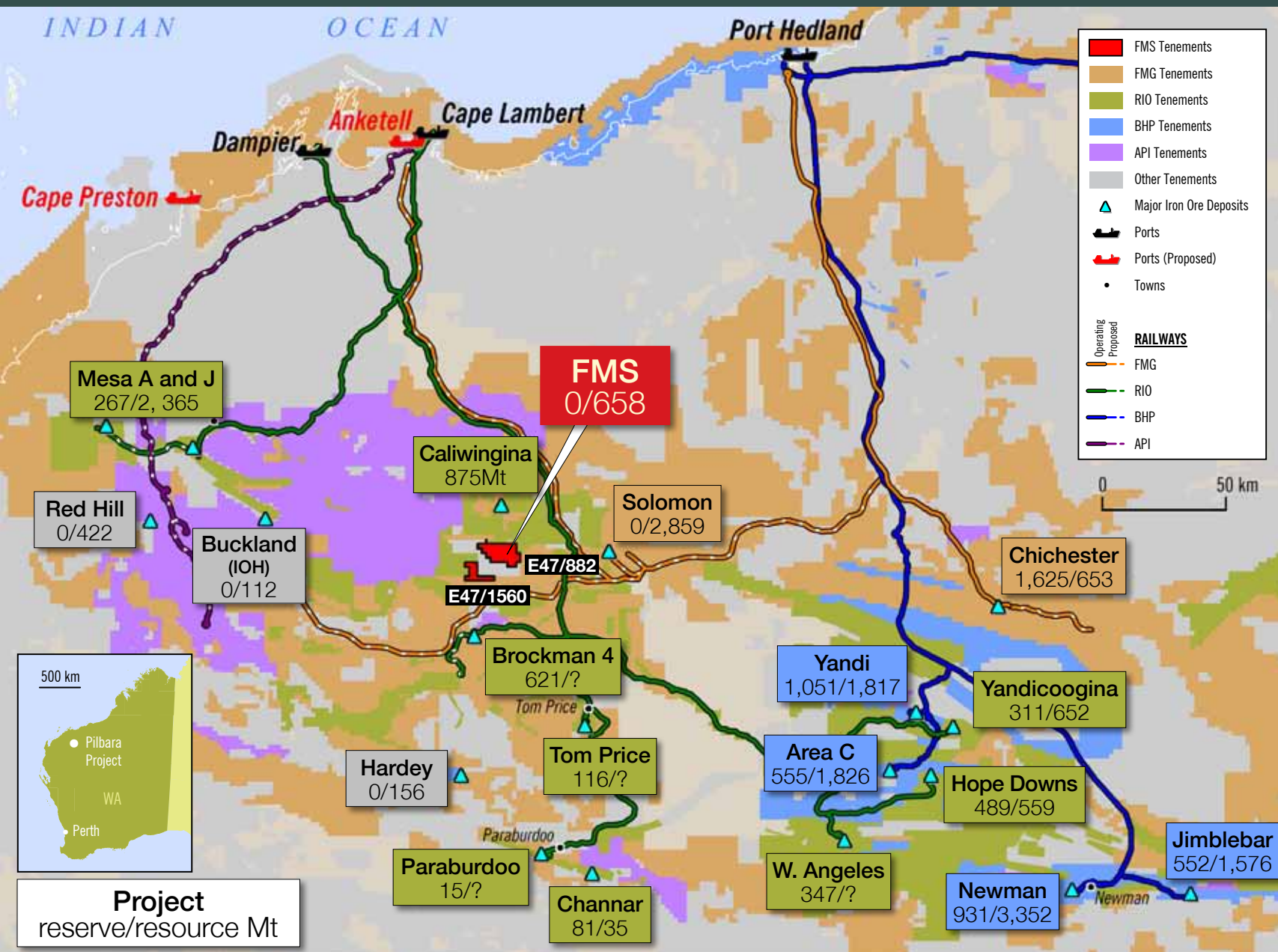
- Flora and fauna surveys underway.
- Subterranean fauna sampling
- Approvals pathway established
- Mining lease application Q4 2010



*Ecoscape survey team at Delta.*

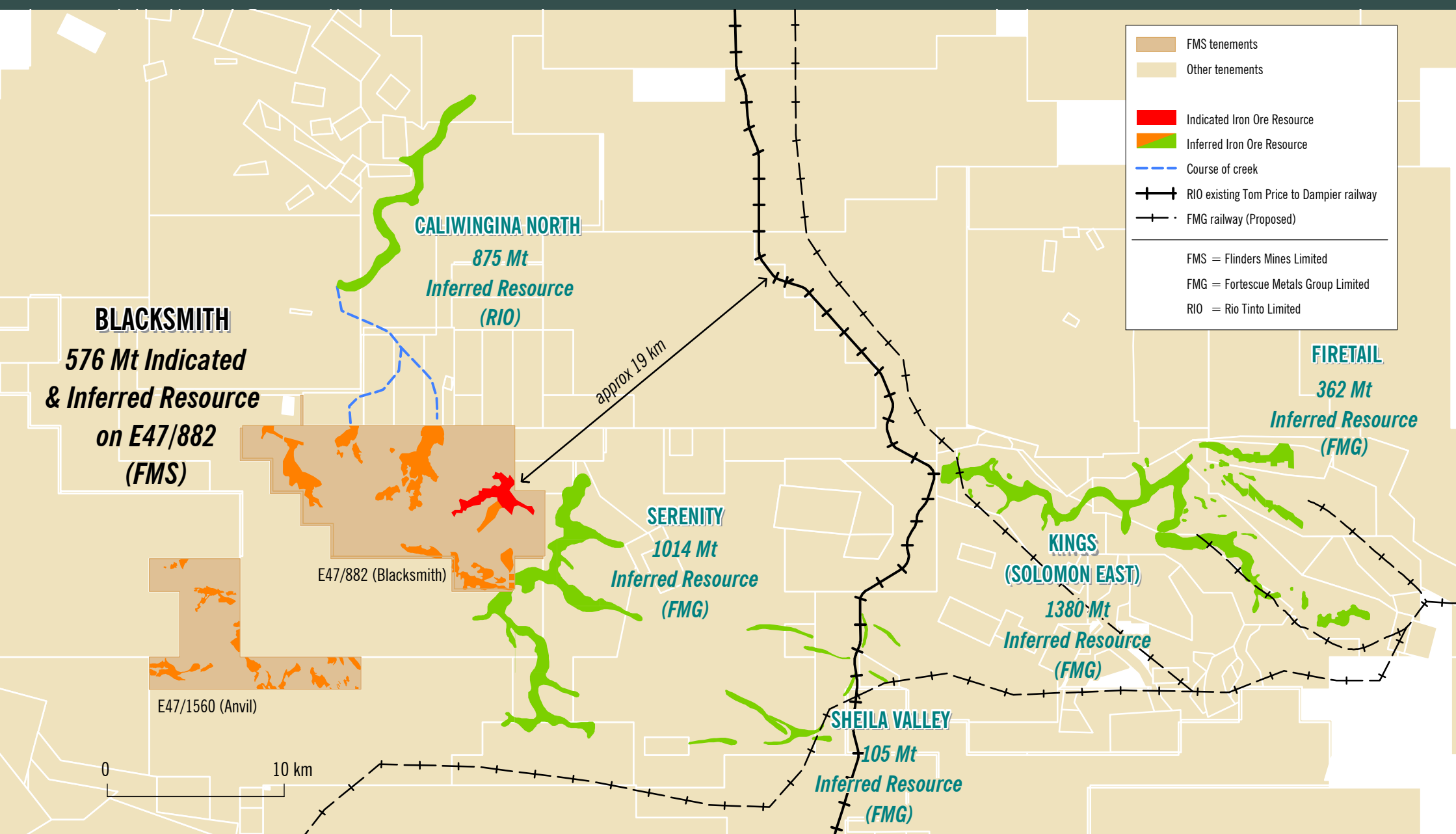


# Infrastructure options



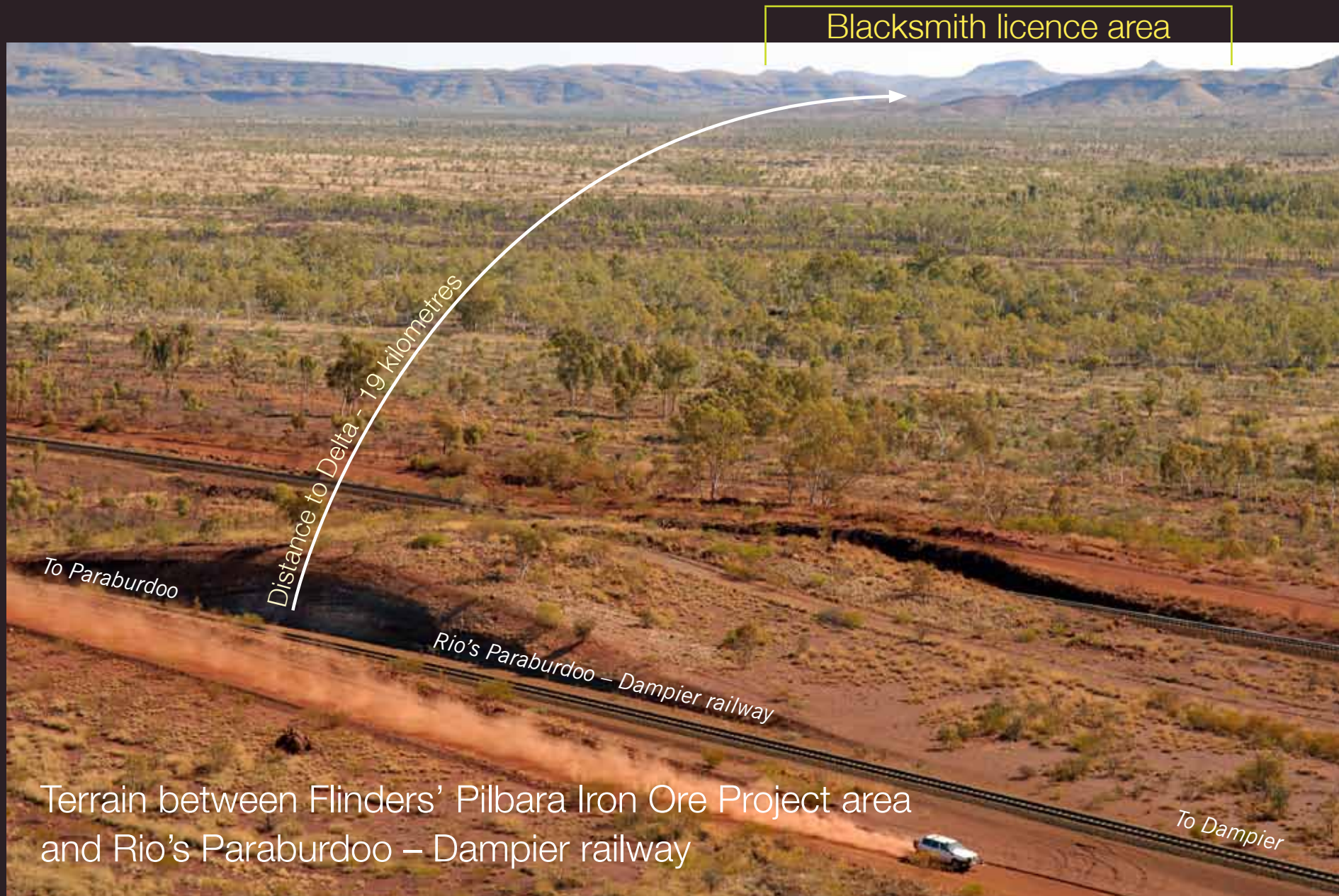
- Well located with respect to existing infrastructure
- PFS considers several potential infrastructure options
- Ideally located for numerous long term proposed infrastructure development solutions, both rail and port

# Pilbara Iron Ore Project – Local precinct



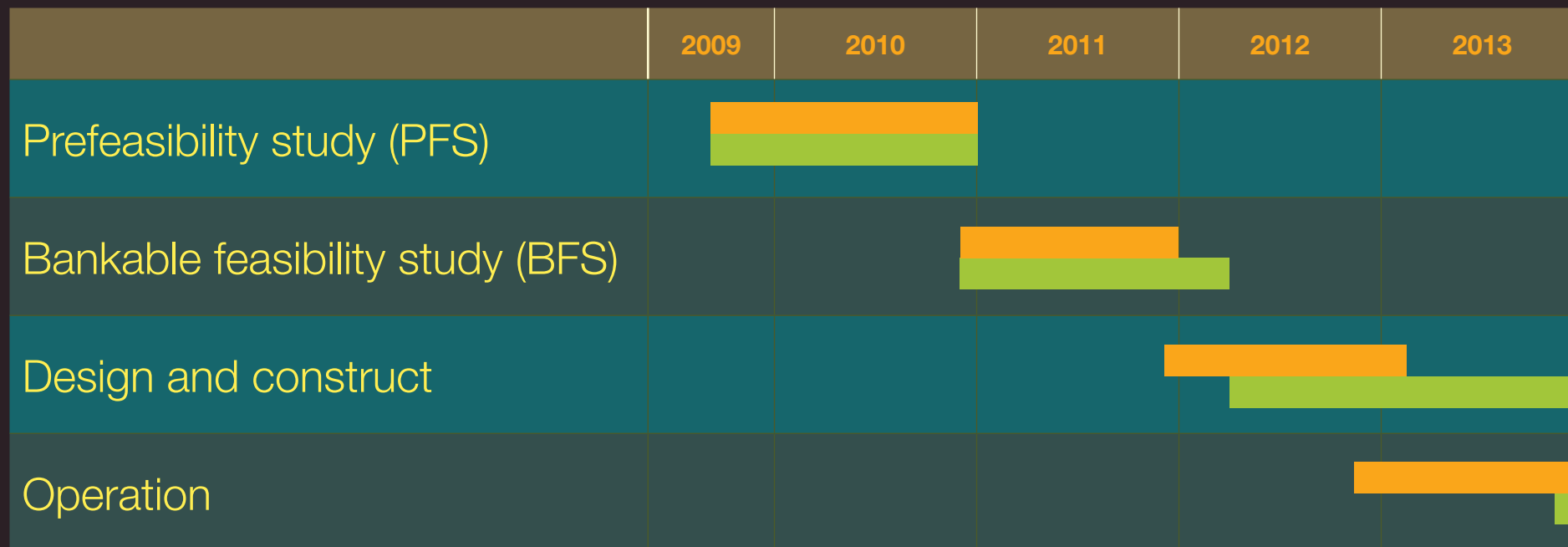


# Looking southwest





# Conceptual development timetable



- DSO (direct shipping ore) path, local infrastructure
- Beneficiation and infrastructure path
- Infrastructure/logistics is critical



# Future Activities –2010



- Updated Global resources – early Q4
- Finalise PFS – Q4
- Complete Phase 2 metallurgical program
- Confirm approvals pathway



# Project standouts

- Part of Pilbara Iron Ore Province
- WorleyParsons undertaking PFS – on program and under budget – PFS complete Q4 2010
- Large Global resource of 658Mt
- Dry mining minimal drill/blast ore and low waste leads to low mining costs
- Infrastructure options available – WA Government recently backed new multiuser port at Anketell
- Strong cash position



# Thank you for your interest



For further information please visit our website at  
**[www.flindersmines.com](http://www.flindersmines.com)**

For further information please visit our website at [www.flindersmines.com](http://www.flindersmines.com) or contact: Gary Sutherland on 08 8132 7950 Email: [gsutherland@flindersmines.com](mailto:gsutherland@flindersmines.com)  
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