

Australia's
Paydirt

**SOUTH
AUSTRALIAN**
RESOURCES & ENERGY INVESTMENT
CONFERENCE

May 2009

Pepinini
Minerals Limited

**Exploring and
Developing the Mineral
Potential of South
Australia**



Peppinini Minerals Limited

Uranium

Nickel

Copper

Gold

Iron Ore

Phosphate

Base Metals

Diversified

Near Term Production

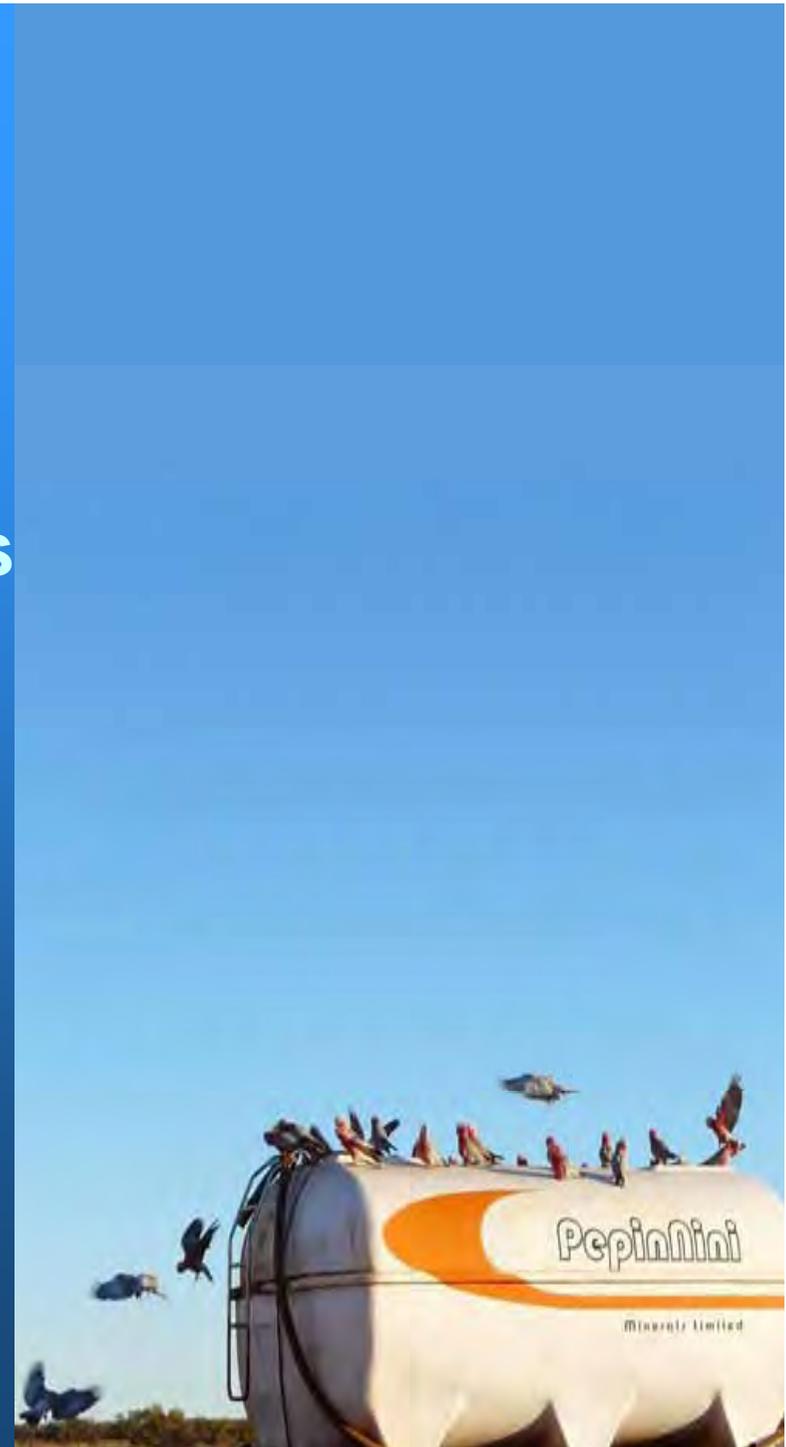
Australian Exploration

Company

Share Capital Details

(30th April, 2009)

- 68,202,499 shares on issue
- Currently 1,907 shareholders
- 61% of issued capital held by top 20 shareholders
- Currently capitalised at AUS\$15.5 million
- Current cash AUS\$10.5 million



Corporate

Norman Kennedy

Chairman & Managing Director

Exploration Geologist for over 30yrs

Rebecca Holland-Kennedy

Executive Director & Company Secretary

Administration and Exploration Geologist for over 30 yrs

Christopher Lambert

Non-executive Director

London based financial background

Albert Harris

Non-executive Director

Management of Petroleum and Exploration Industry companies for over 55 years

Management

Phil Clifford

Exploration Manager

Ex Rio-Tinto

Dr Lachlan Rutherford

Exploration Manager – Musgrave SA

Ex Primary Industries & Resources SA

Gary Ferris

Exploration Manager – Queensland

Ex Primary Industries & Resources SA

Colin Skidmore

Exploration Consultant – Curnamona SA

Ex Uranium One (Honeymoon)

Registered Office

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Fax + 61(2) 94173043
Email admin@pepinnini.com.au
Website www.pepinnini.com.au

Principal PLACE OF BUSINESS

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Fax +61 (0)8 8212 5717
Email admin@pnn-adelaide.com.au

Share Registry

Computershare Investor Services Pty
Limited
Level 19
307 Queen Street
Brisbane Qld 4000

Legal Advisors

Finlaysons, Lawyers
81 Flinders Street
Adelaide SA 5000

Auditor

Deloitte Touche Tohmatsu
180 Lonsdale Street,
Melbourne VIC 3000

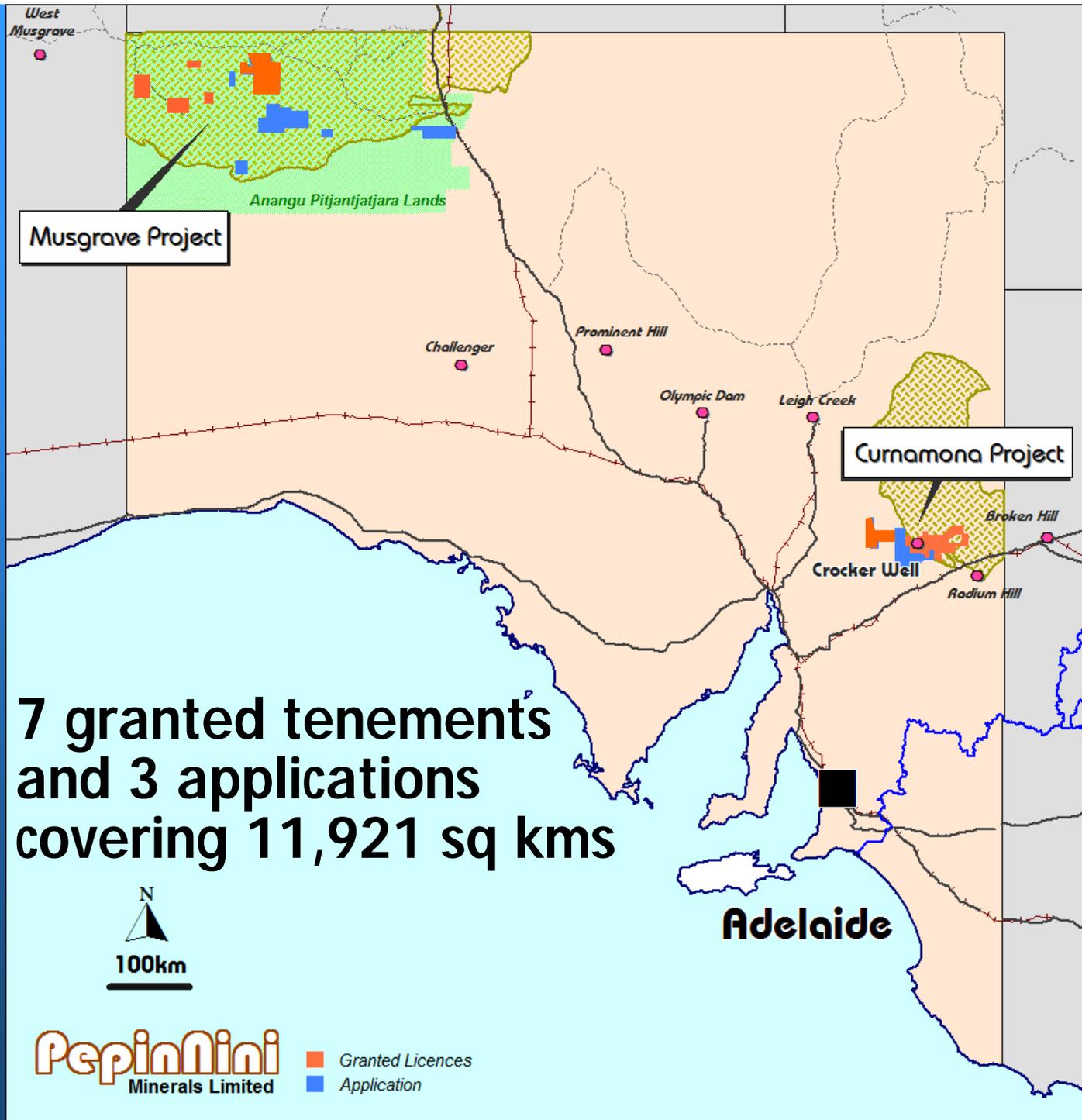
Accountants

PricewaterhouseCoopers
91 King William Street
Adelaide SA 5000

Peppinini Minerals Limited



40
exploration
tenements
covering
>15,800 sq.kms.



Curnamona Province Project

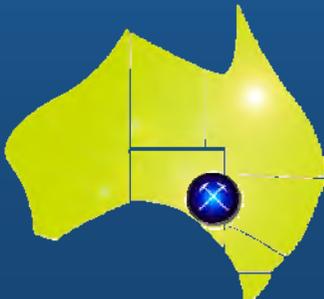
(40% PepinNini 60% Sinosteel Corporation)

Advanced Uranium Project – Crocker Well

- Strategic alliance with Sinosteel Corporation to jointly develop the Uranium Project
- Aim to be in production in 2010/2011

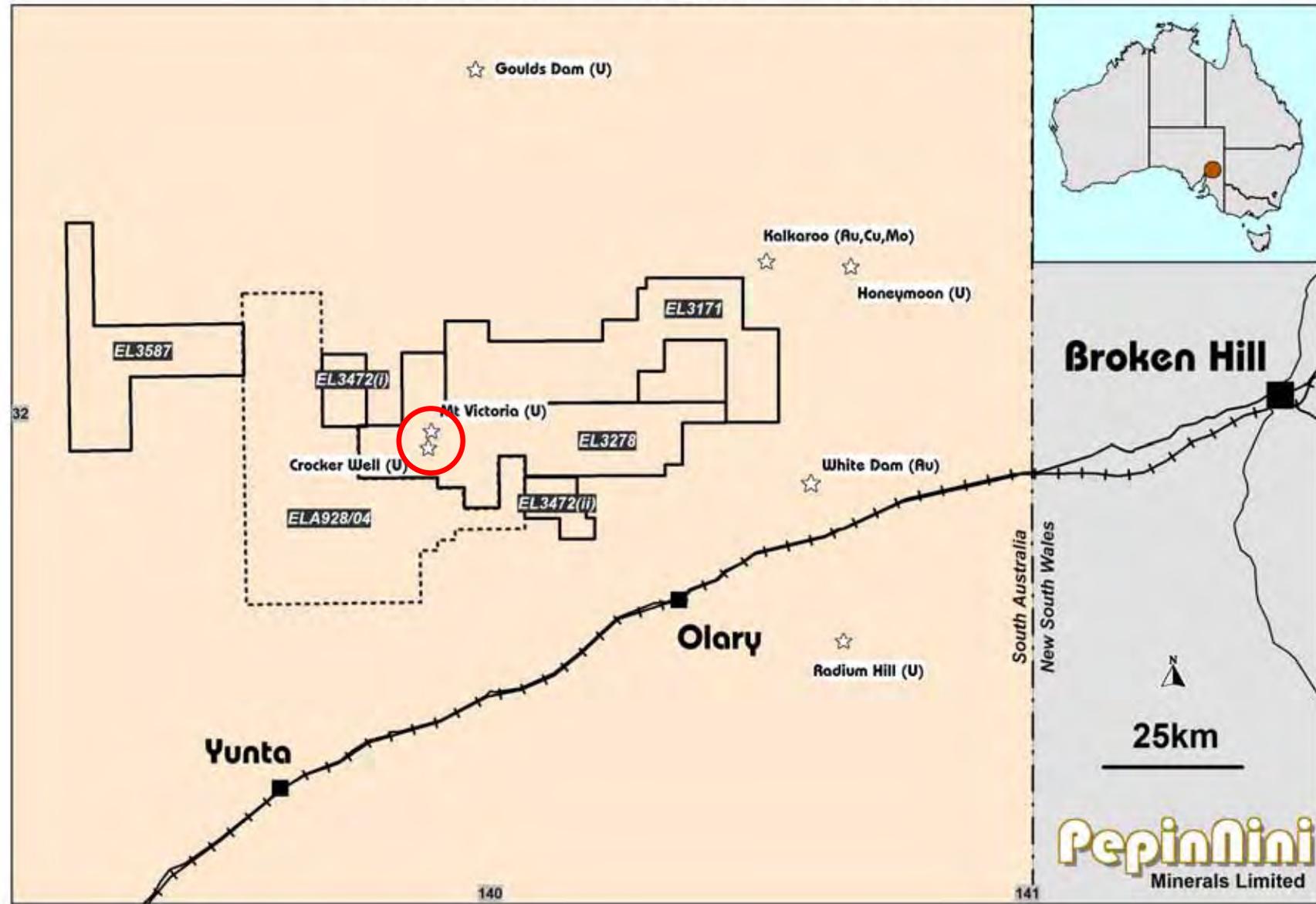
Other Projects

- 26 additional known uranium prospects to be investigated
- More than 30 Base Metal (Copper/Lead/Zinc) and Gold targets ready to drill



PepinNini

Curnamona Project - Tenement Location Plan



5 Tenements covering 3,778 sq kms



Drilling at Crocker Well



**BUDD
CONTRACT
EXPLORATION**

**MUST BE WORN PAST
THIS POINT**

DANGER
AUTHORISED
PERSONS ONLY
PAST THIS POINT

SITE LIMIT
10
SLOW DOWN

More than 220 boreholes
completed for resource
verification



Field Camp at Crocker Well



Meteorological Station at Crocker Well



Meteorological Station at Crocker Well

(Temperature, pressure, evaporation, humidity, rainfall, wind speed and direction, dust and radiation)



Crocker Well

Bankable Feasibility Study

Resource
Validation



Mining



Metallurgical testing



Regulatory Approvals and EIS

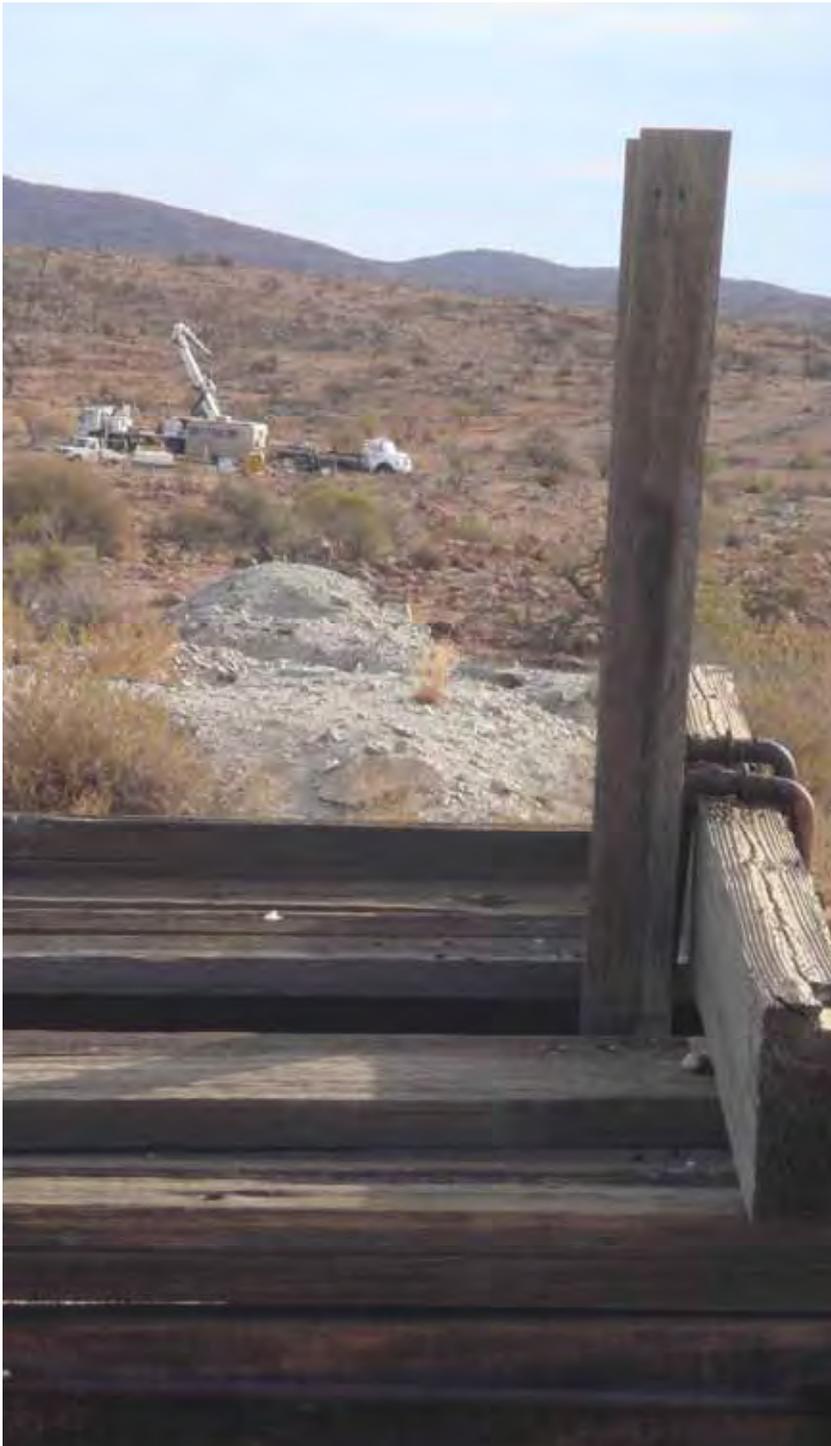


BFS

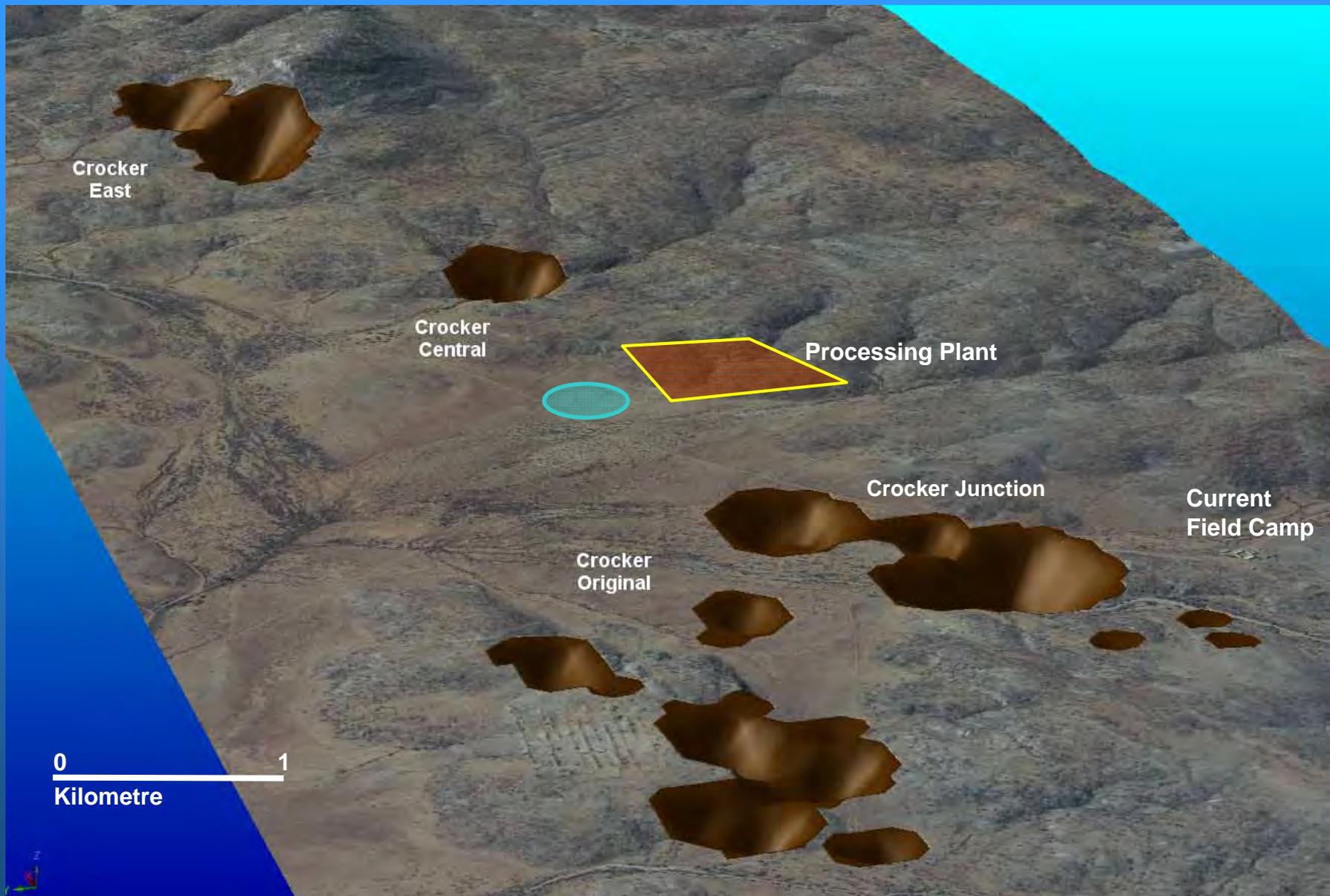




- **Lodgement of a Referral under the Commonwealth Government Environment Protection and Biodiversity Conservation Act for the development of a uranium mine at Crocker Well (August, 2008)**
- **Submission of an application for a Mining Lease at Crocker Well – (September, 2008)**



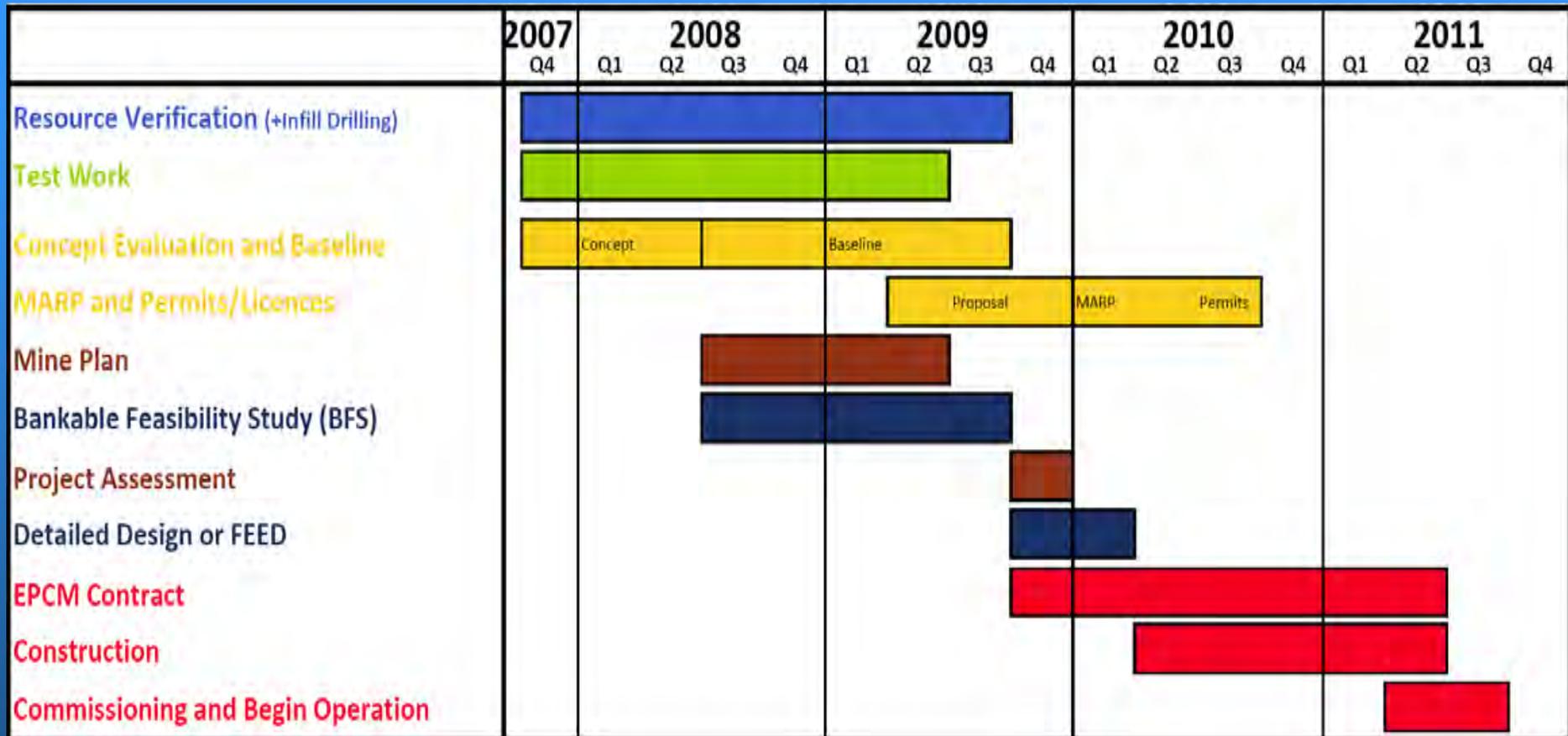
- **Consultation with the traditional owners, government, pastoralists and the local community has begun**
- **Subject to approvals, construction, commissioning and operation is scheduled for 2010 and 2011**



Preliminary Pit Optimisation



Current Proposed Processing Plant Layout



Project Schedule



Ministerial Visit 20th January, 2009



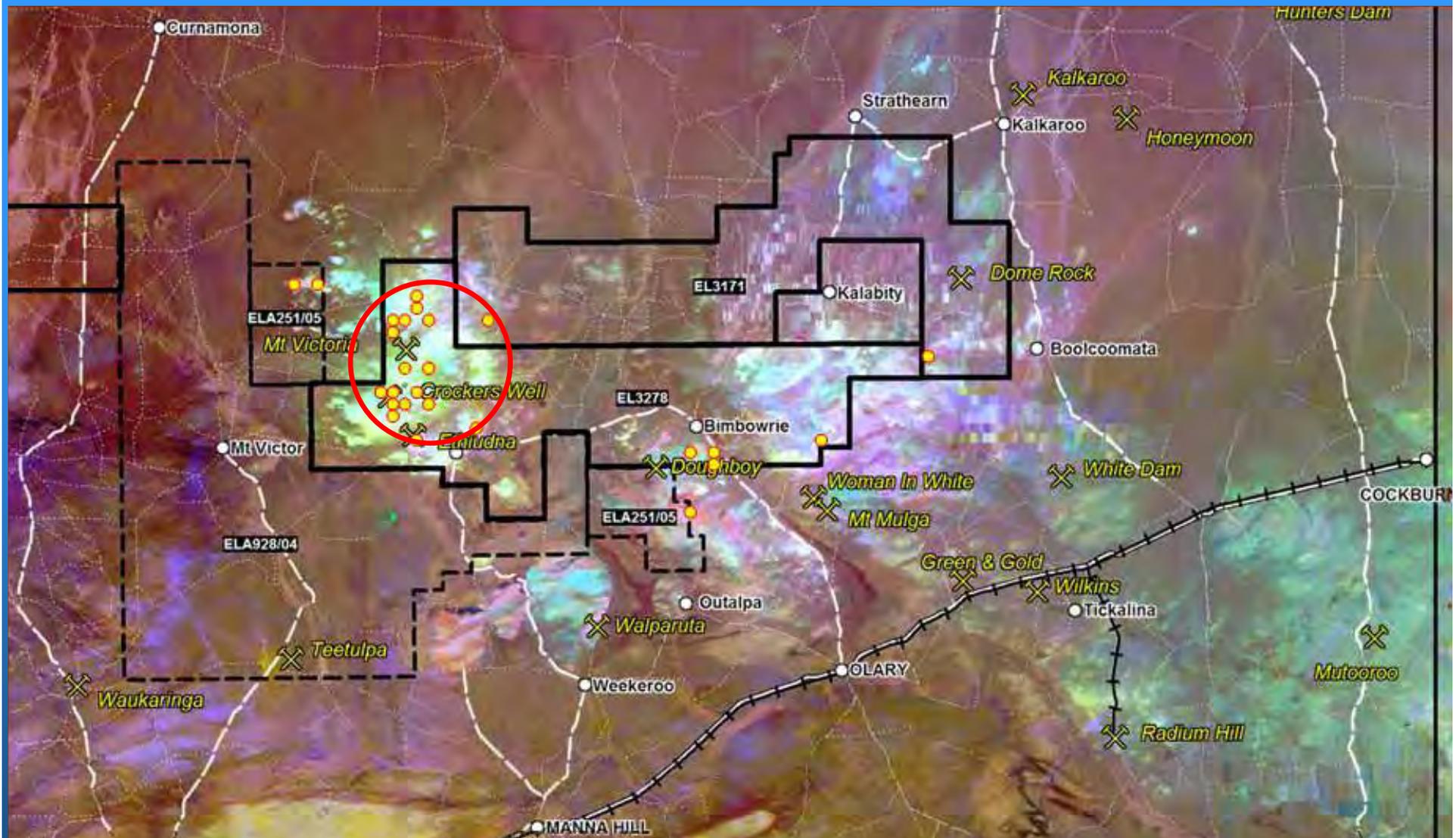
Curnamona Project

Uranium Project – Other Prospects

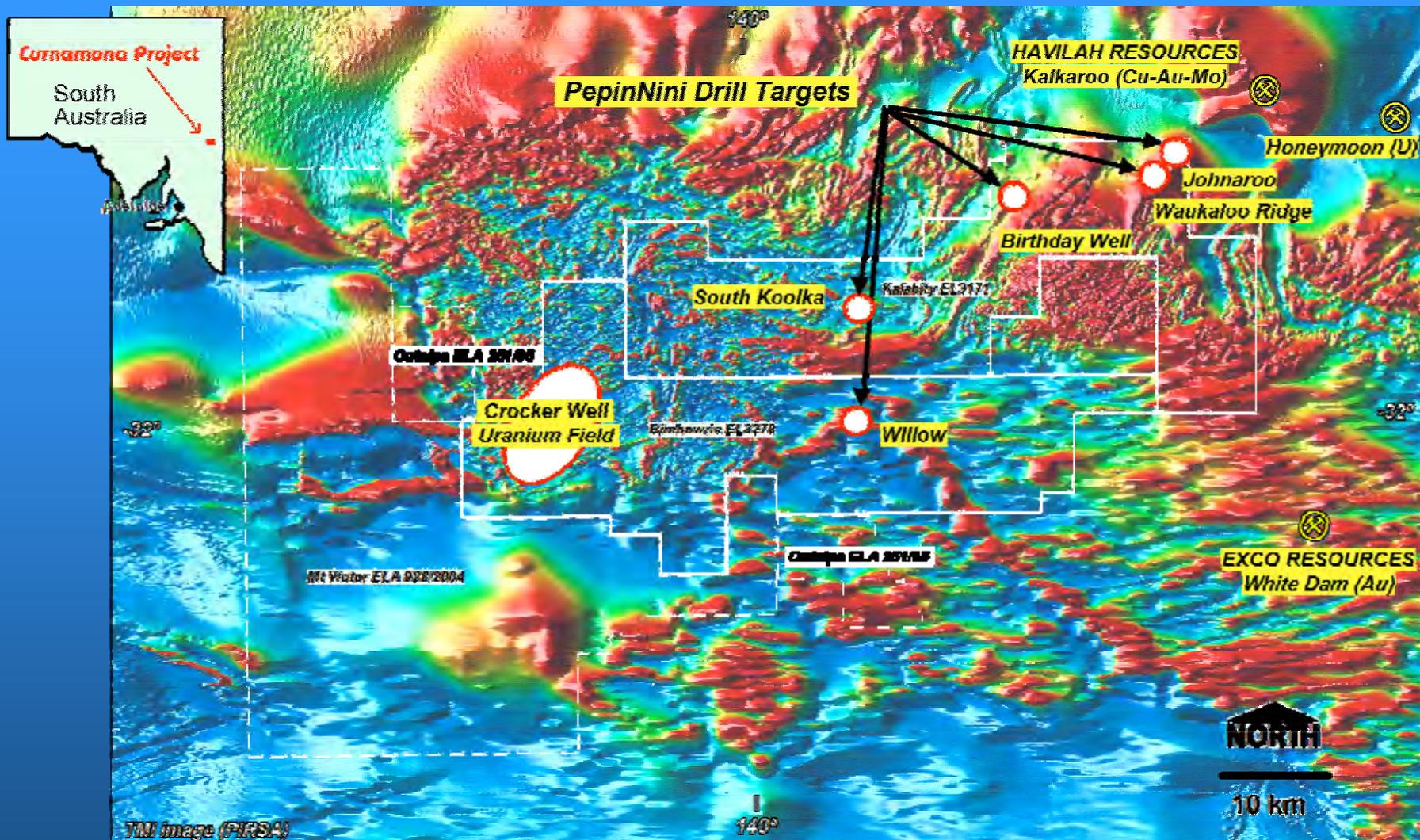
- 26 additional known uranium prospects to be investigated
- Very high grade surface samples (up to 26kgs/tonne U_3O_8) from newly discovered Becaroo and Anomaly A Prospects
- Potential for Palaeochannel Uranium Deposits
- Potential for unconformity related Uranium Deposits

Base Metals and Gold

- More than 30 Base Metal (Copper/Lead/Zinc) and Gold targets ready to drill
- Sinosteel Corporation committed to spend \$6million on exploring for minerals other than uranium



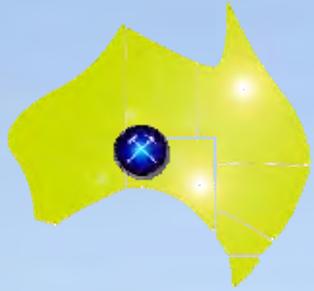
26 additional known primary uranium prospects other than Crocker Well and Mt Victoria. Potential for secondary palaeochannel style deposits as well as unconformity related uranium mineralisation



More than 30 priority base metal (Cu/Au, Pb/Zn) targets ready to explore



**Encouraging drill intersections by previous explorers include
10m @ 2.07g/t Au, 0.74% Cu, 5.6m @ 8.5% Cu and 32m @ 0.66% Zn**



Musgrave Province Project

Nickel, copper, PGE's
lead, zinc, silver
(100% PepinNini)



PepinNini



Diamond Drilling Rig and Support Equipment



Vacuum Drilling Rig

Rehabilitation Equipment



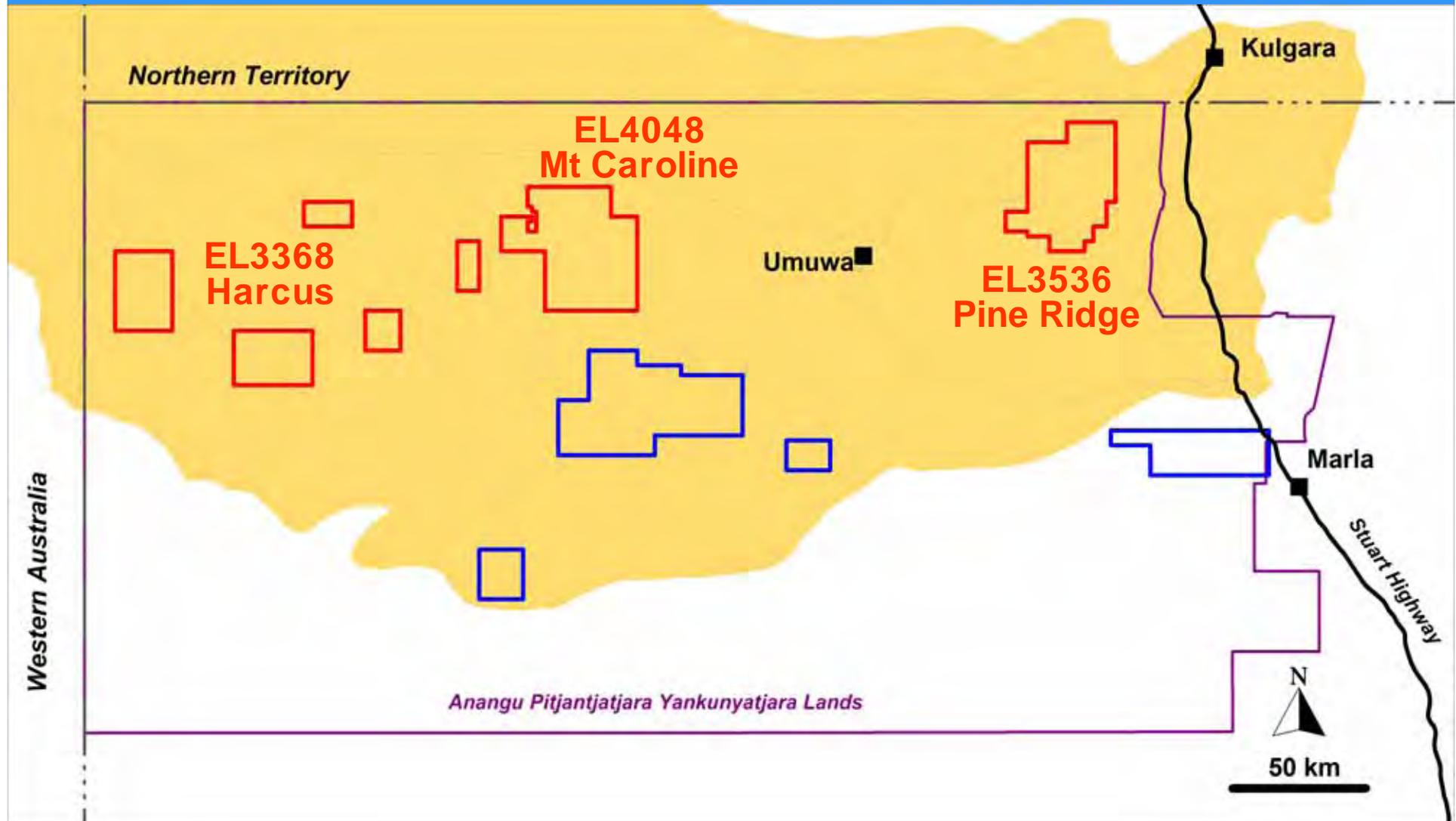


4WD Backhoe



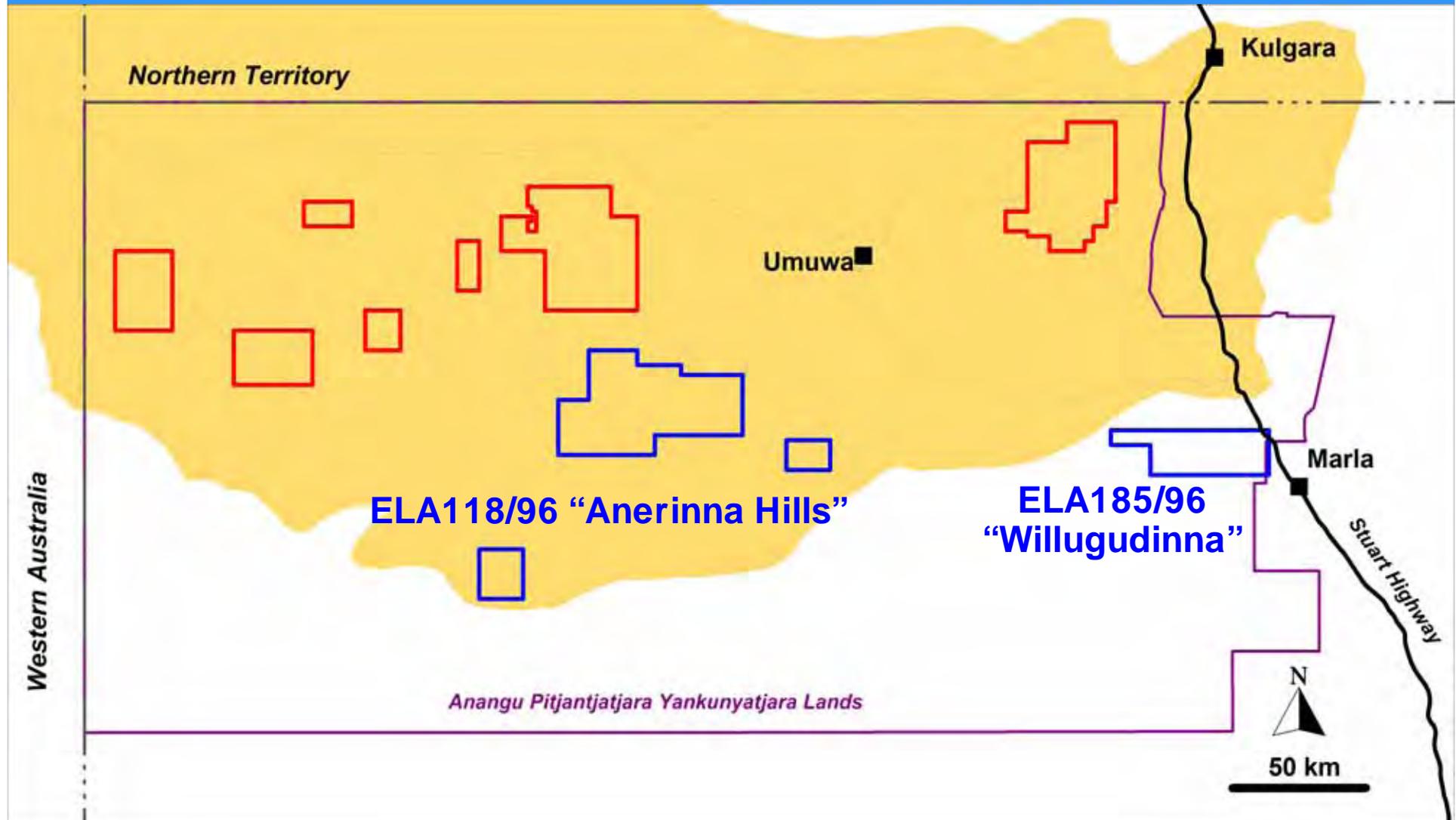
Field Camp

Musgrave Tenement Status



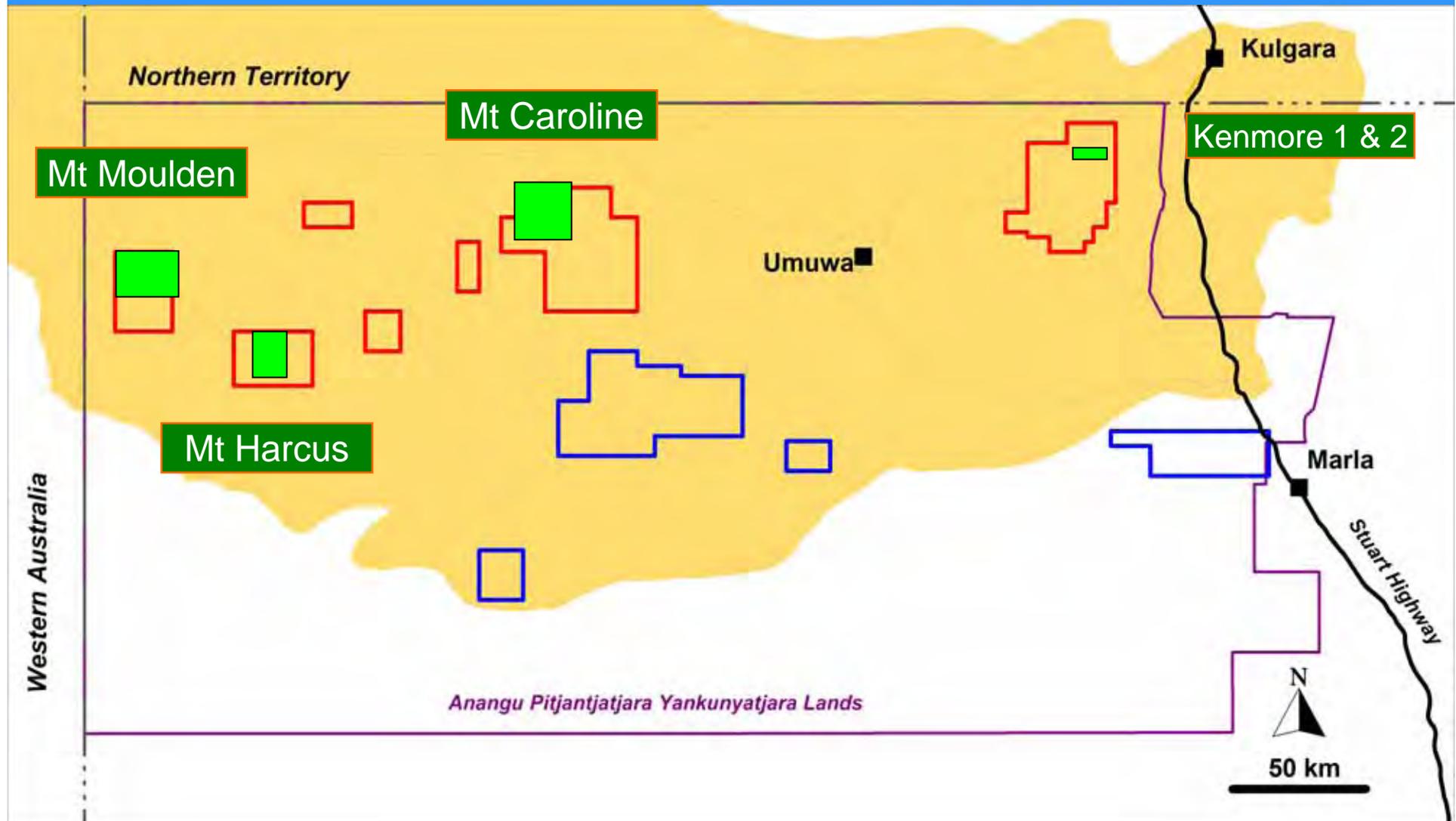
3 Granted Exploration Licences (7 blocks = 4,905km²)

Musgrave Tenement Status



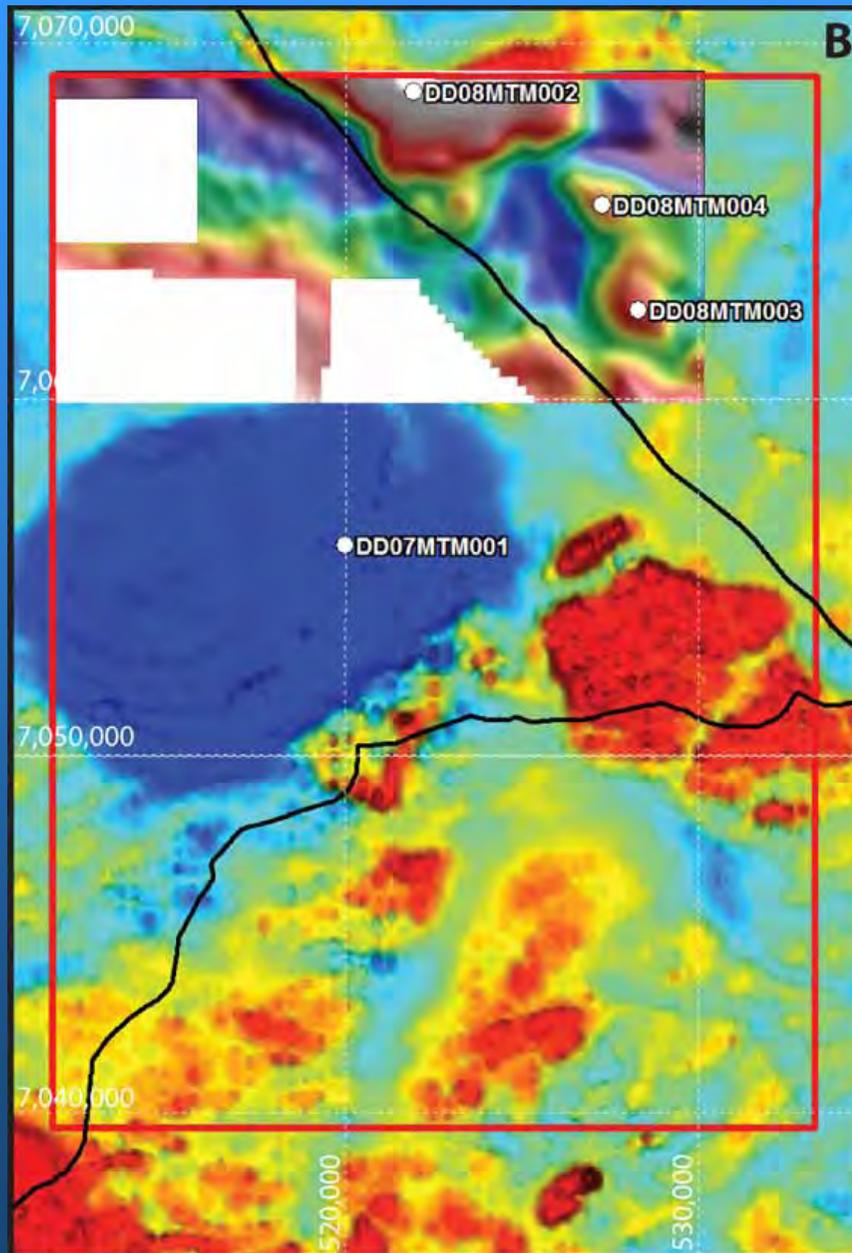
2 Exploration Licence Applications (4 blocks = 3,238 km²)

Nickel Sulphide Target Locations



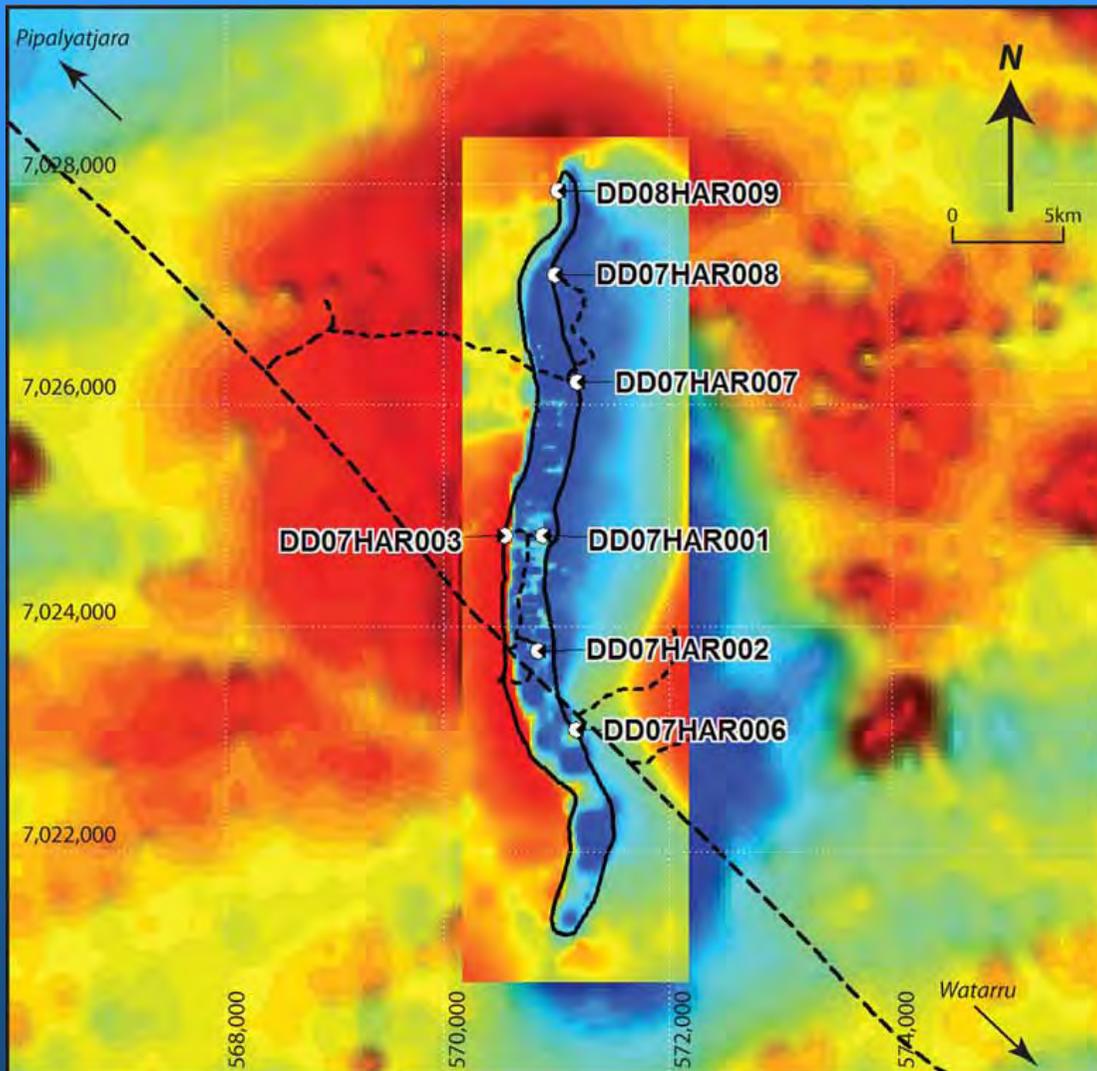
Highest priority Ni-Cu sulphide targets.

Mt Moulden Block – Nickel Sulphide Targets



- Nickel copper sulphide & platinum group metal targets
- Prospective Giles Complex rocks in NE of block
- Similar geological setting to Voisey's Bay (Ni-Cu)
- Large 10x15km magnetic anomaly & gravity feature
- Sulphides intersected in PIRSA drilling - elevated Ni, Cu, Au, Pt in chip samples
- Four diamond drill holes – sulphur saturation confirmed

Mt Marcus Block – Nickel Sulphide Targets



- Nickel copper sulphide & platinum group metal target
- Similar geological setting to Voisey's Bay (Ni-Cu)
- Extreme magnetic anomalies (up to 65,000nT)
- Harcus Intrusion 7km x 350m (mag-gravity) – 7 diamond drill holes
- Harcus NW (mag-EM – gravity) – 2 DDH
- Disseminated and massive sulphides intersected



DD07HAR008

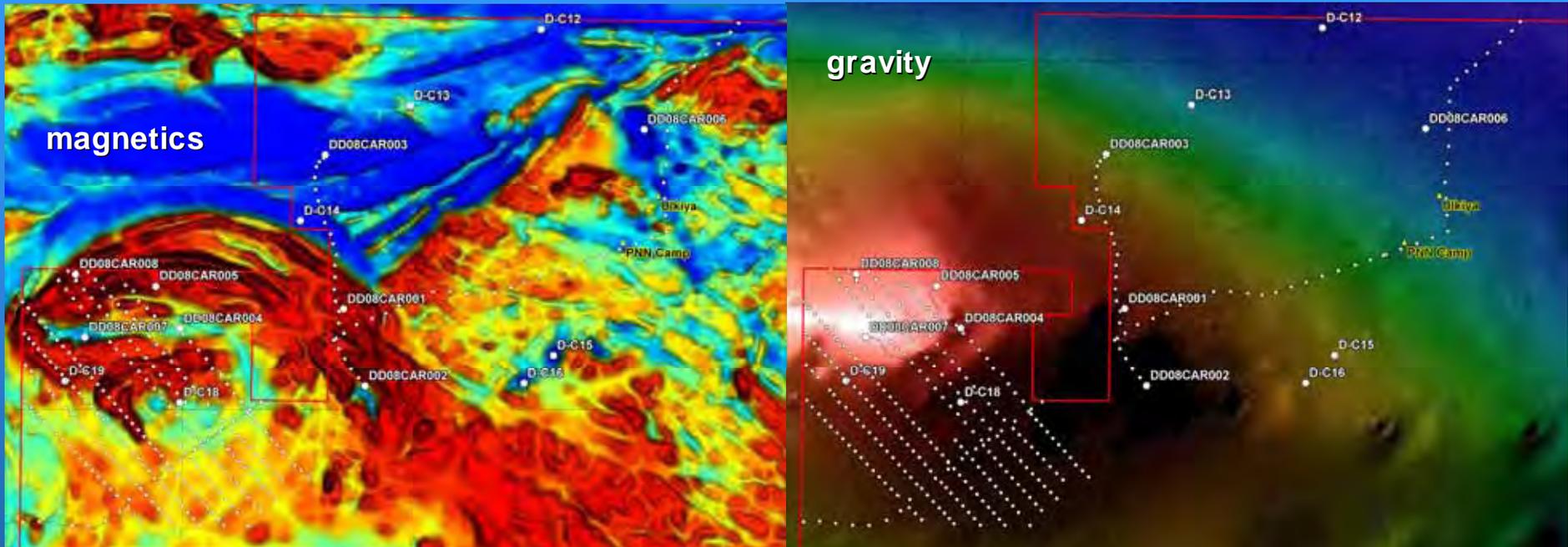
0.3%Cu, 0.3% Ni

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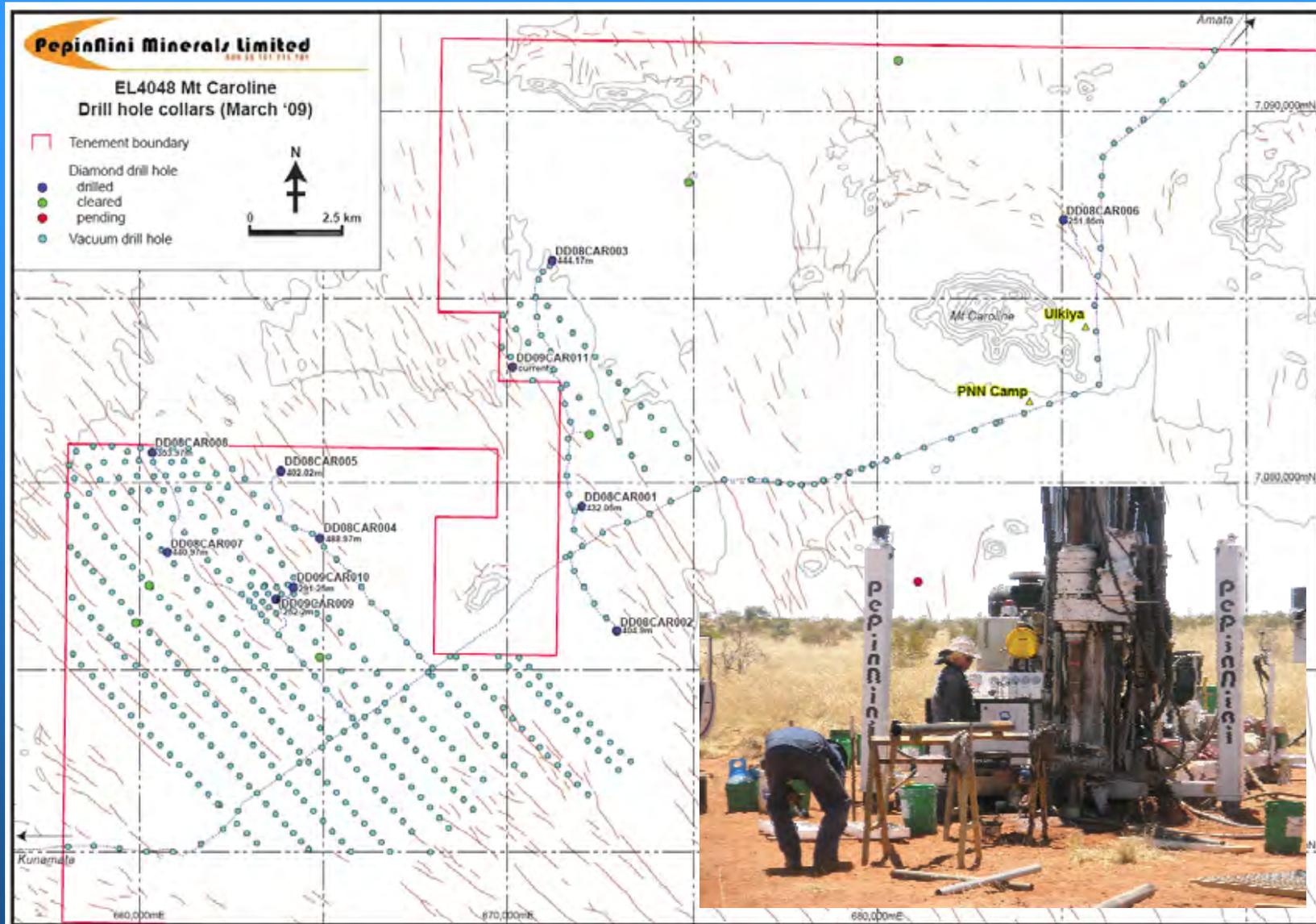
0.7%Cu



Mt Caroline Nickel Target

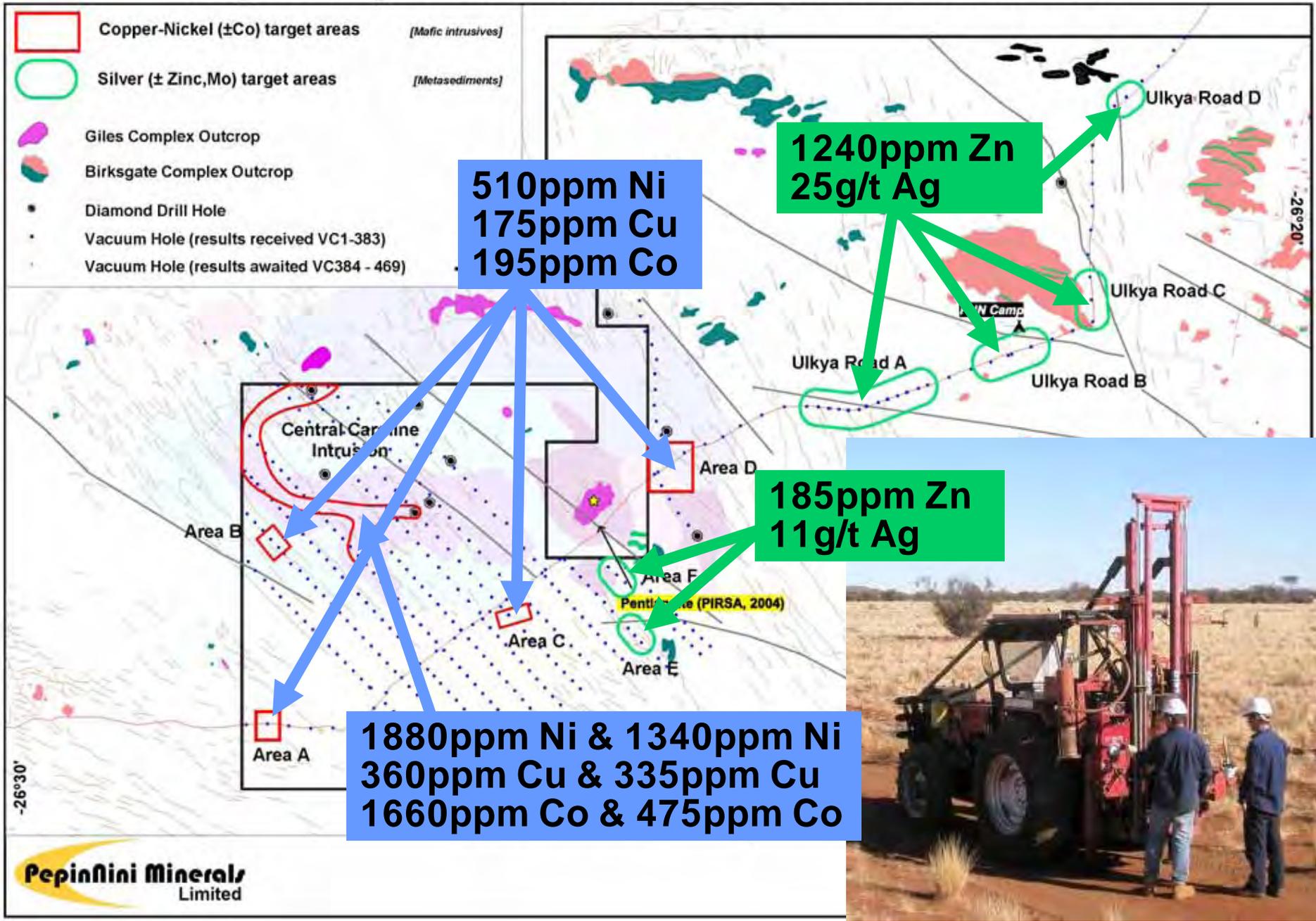


- Mt Caroline intrusion - nickel copper sulphide & platinum group metal target
- Similar geological setting to Voisey's Bay
- Large (18x8kms), undercover, layered mafic/ultramafic intrusion
- Published reports consider Mt Caroline intrusion has highest potential for hosting significant nickel sulphide mineralisation in S.A.
- Airborne EM survey conducted by Rio Tinto has defined drill targets for potential shallow conductive sulphide bodies

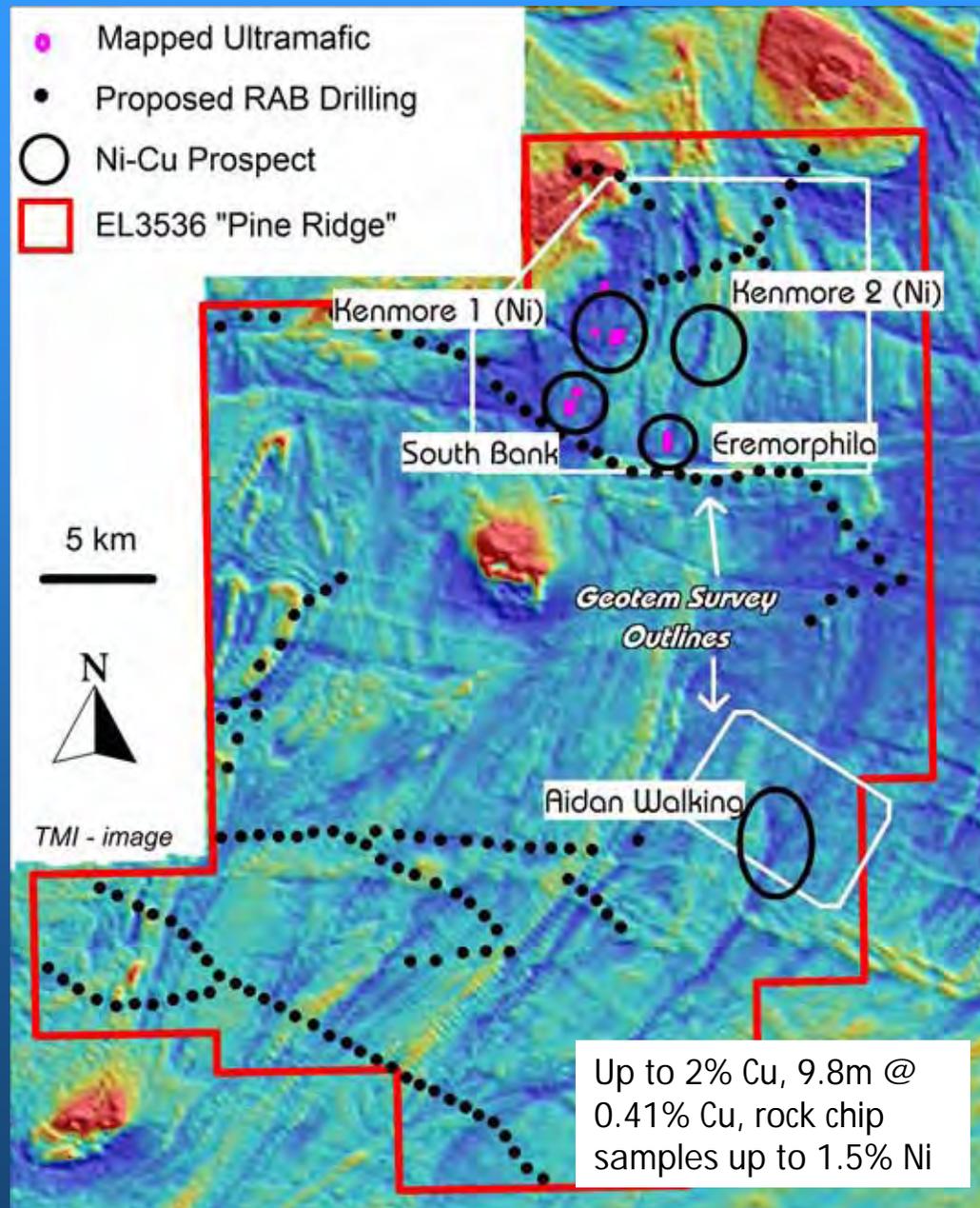


- 12 diamond drill holes completed for 4,665m
- 469 vacuum drill holes completed for 5,142m
- Sulphides present in every diamond hole drilled to date

Musgrave Project - Mt Caroline EL4048 Vacuum Drill Anomalies

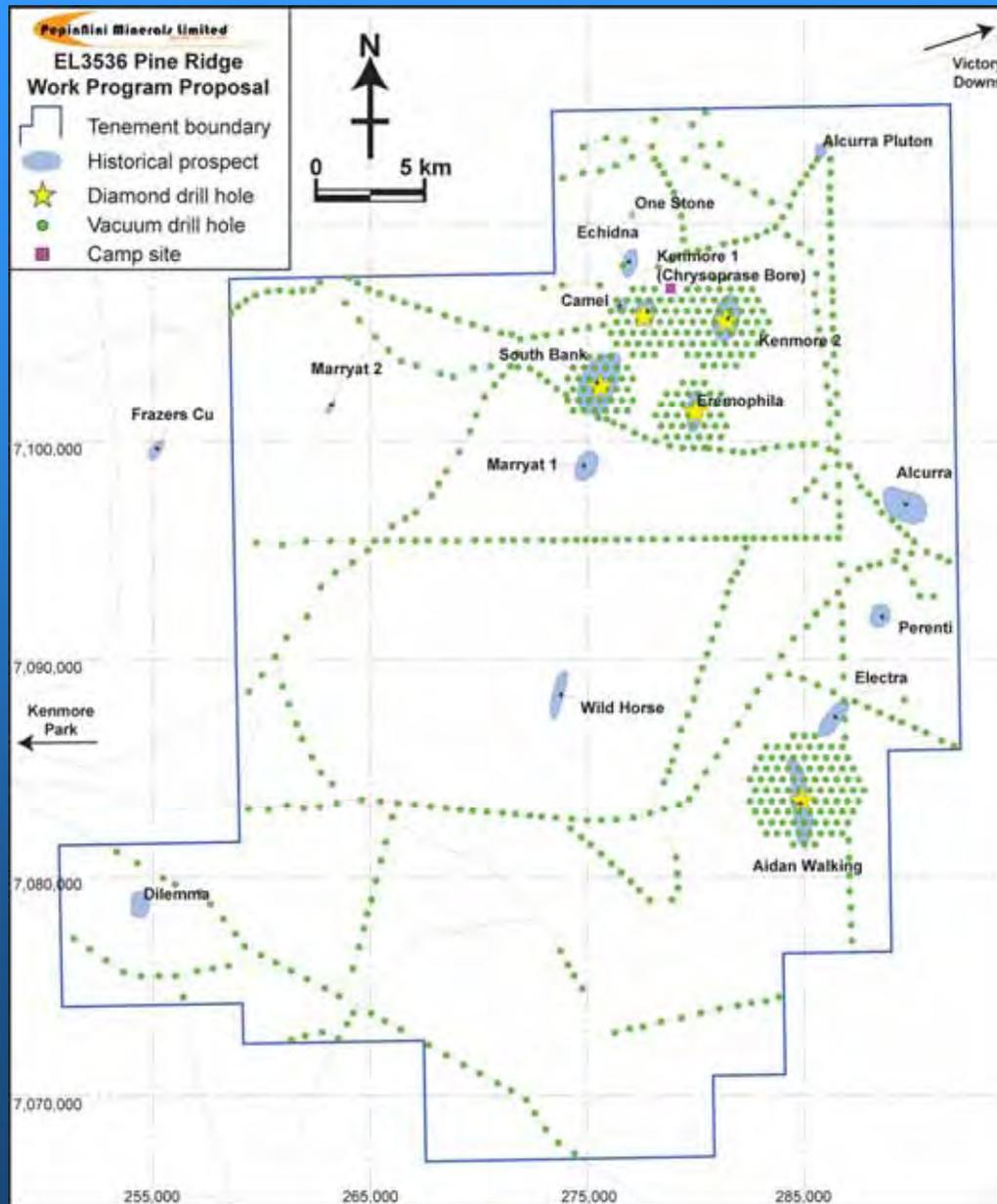


Pine Ridge EL3536

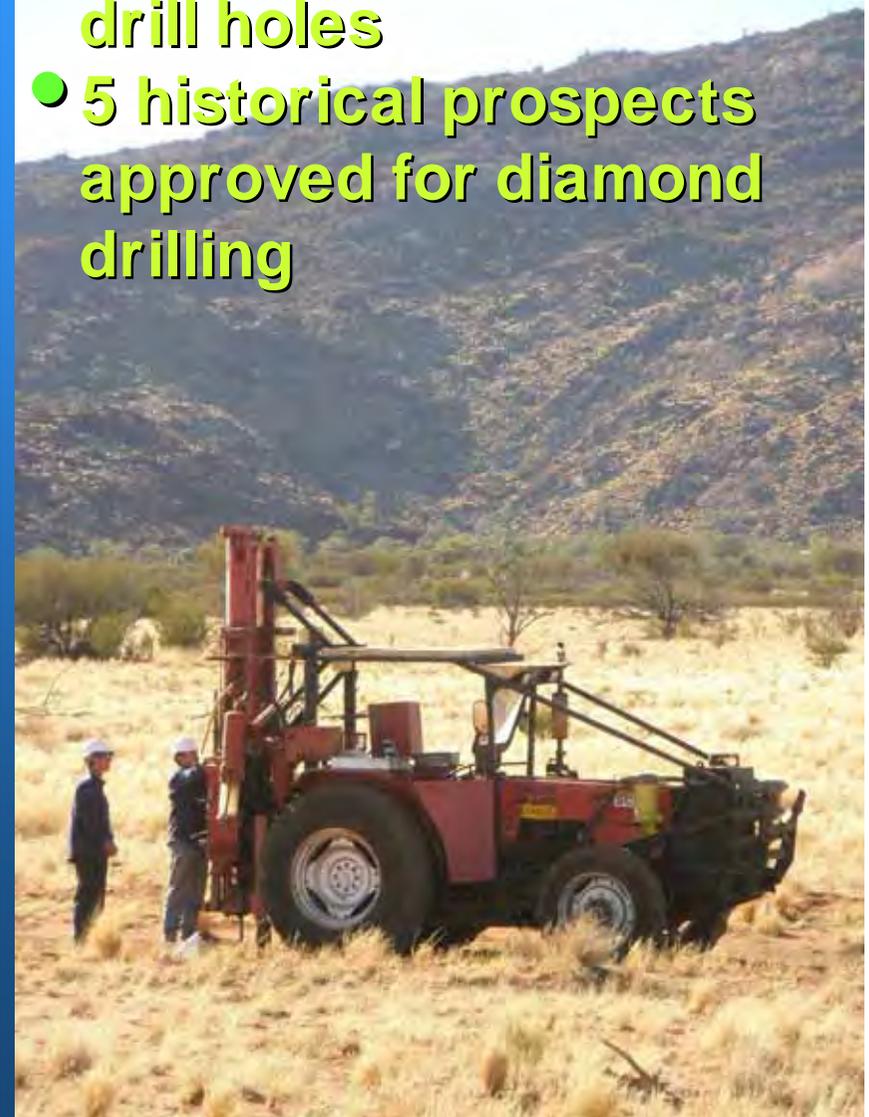


- Acquired from Rio Tinto.
- Mapped ultramafic rocks.
- Known Ni & Ni-Cu prospects.
- Drilling of nickel targets planned early 2009.
- Basement rocks similar to Broken Hill region.
- Potential base metal targets.
- Regional shallow vacuum drilling to generate base metal targets has commenced.

Pine Ridge EL3536



- ~700 approved vacuum drill holes
- 5 historical prospects approved for diamond drilling





Thank You

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- The information in this presentation that relates to Exploration Results and Mineral Resources is based on information compiled by Norman Kennedy BSc MAusIMM. Norman Kennedy is the Managing Director of PepinNini Minerals Limited and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration 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". Norman Kennedy consents to the inclusion in the report of the matters based on his information in the form and context in which it appears

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