

# Lodestone Exploration Limited



Overview  
28 November 2008

# Lodestone Exploration Limited

*Exploring historic coal and mineral fields with modern techniques*



**Presentation to Annual General Meeting – 28 November 2008**

**LODESTONE**

[www.lodestonex.com](http://www.lodestonex.com)

ASX: LOD

ABN 20 075 877 075

# Overview

## ***Lodestone's Year***

- April • Appointed William Stubbs to the board. Mr. Stubbs is a former chairman of Arrow Energy Limited.
- May • Generated fresh targets at 'Discoverer Two' Prospect east of Mount Morgan.
- June • Farmed into Moreton Energy's coal prospects south of Beaudesert.
- June • Appointed Lance Grimstone to the board. Mr. Grimstone is a former long-standing consultant to Macarthur Coal Limited.
- July • Raised \$1.75 million from shareholders (\$0.99m), directors (\$0.25m) and other investors (\$0.51m) at \$0.03 per share.
- October • Appointed Jeff Jamieson as CEO. Mr Jamieson has extensive experience as an open pit consultant in the coal industry.
- November • Completed detailed mapping and sampling Leane's copper-gold prospect north of Chillagoe.

# Mount Morgan – Historic Endowment



Mount Morgan Mine Site and Smelter - Circa 1903.

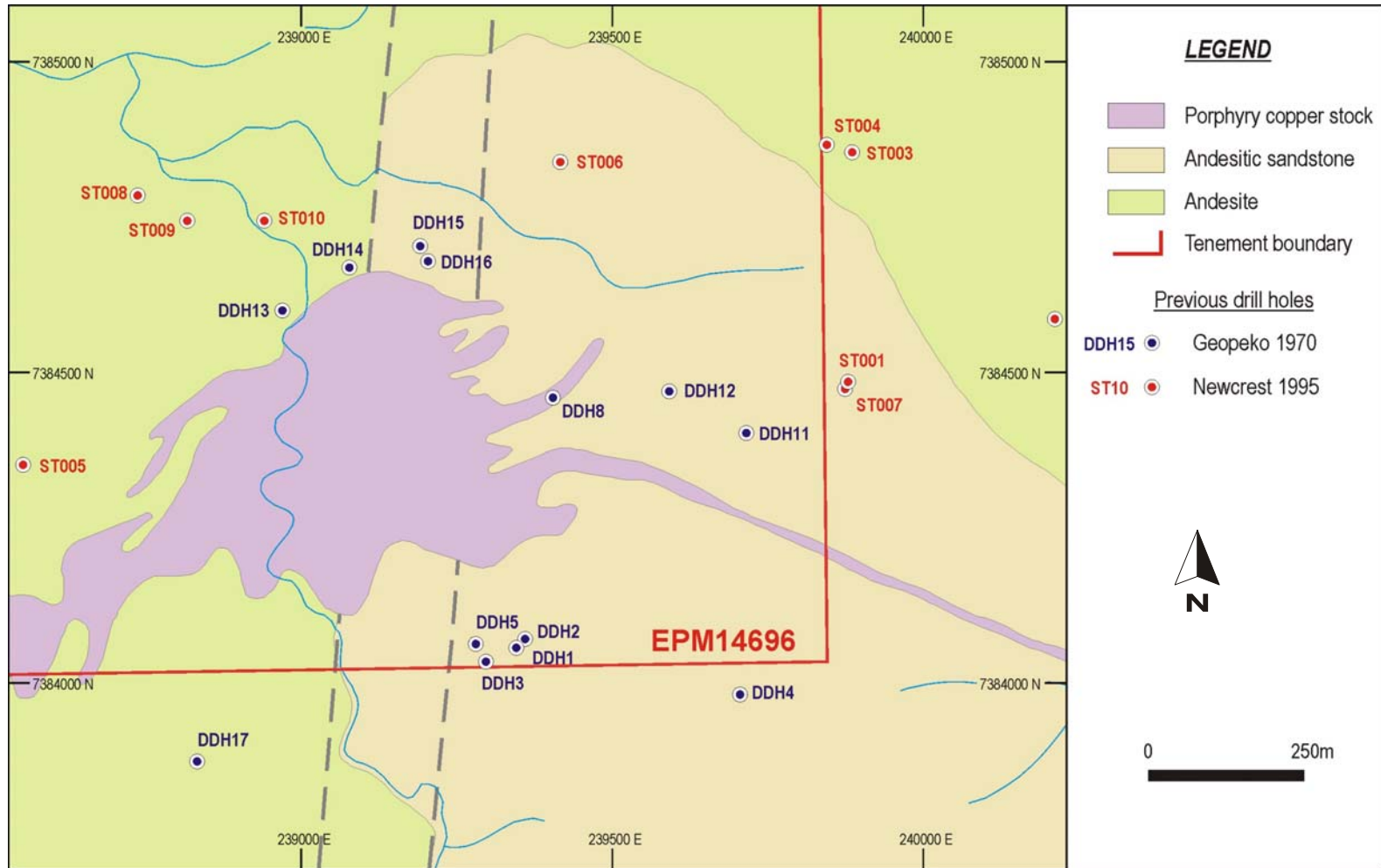
- 50 million tonnes of ore
- Average 5 grams/tonne Gold
- 280 tonnes Gold
- 37 tonnes of Silver
- 360,000 tonnes Copper
- Gross Value A\$10 billion+

# Overview

- Mount Morgan and Limestone Creek are core projects, on which LOD was first funded and listed.
- Mount Morgan consists of six prospects:  
Midas, Morganite, Moongan, Discoverer Two, Station, Hamilton West.
- Lodestone will offer the Moongan, Discoverer Two and Station Prospects as an intrusion centered copper-gold-molybdenum farmout 'package'.
- This package would require 4300+ metres, in 15+ holes, costing approximately \$860,000 'all up'.
- The Midas, Morganite and Hamilton West Prospects will be offered as a VMS copper-gold-molybdenum farmout 'package'.
- This package would require 6500+ metres, in 12+ holes, costing approximately \$1.3 million 'all up'.



# Mount Morgan District Project: Discoverer Two Prospect



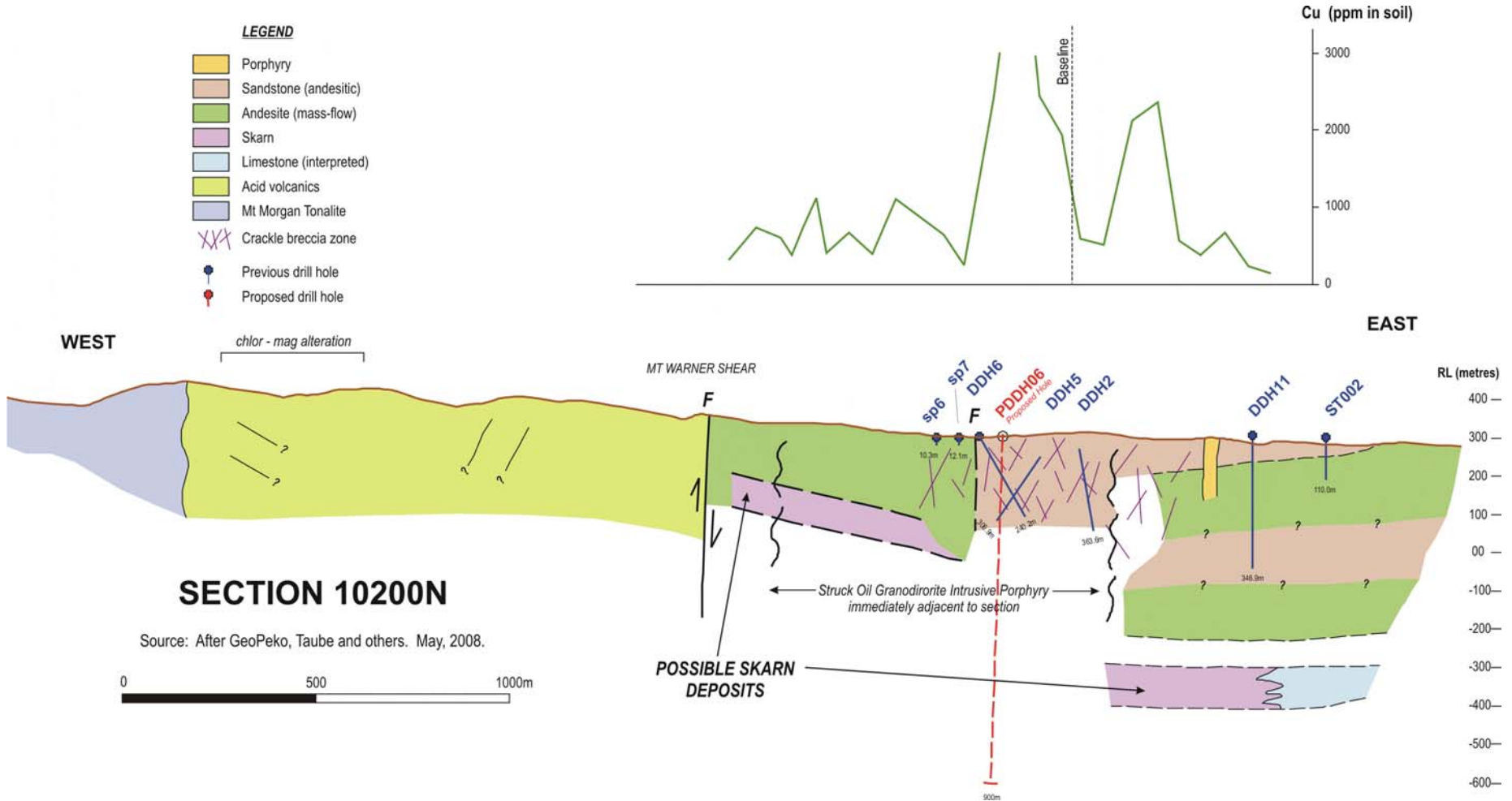
## Main Elements and Previous Drillsites

Source: After Geospectrum (Australia) Pty Ltd, 1997

# Mount Morgan District Project: Discoverer Two Prospect. Outlook

- Discoverer Two is prospective for skarn mineralisation at depth.
- A skarn in this environment could be copper zinc or gold rich, and could be high grade.
- Fresh drill targets have been generated. Two are shown on the next page.

# Mount Morgan District Project: Discoverer Two Prospect. Drill targets





# Limestone Creek Project: Targeting

- 200 kms north-west of Cairns.
- Targeting sediment-hosted copper-gold in Chillagoe Formation.
- Chillagoe Formation hosts former Red Dome mine and Kagara's Mungana project, 130 kms to the south.
- IKONOS imagery interpreted by Ausmec.



# Limestone Creek Project: Leane's Prospect. A New Copper Discovery

- LOD (Mike Seed) has discovered copper mineralisation with a strike length of at least 1.2kms.
- Width is not yet known because of scree cover.
- Detailed mapping and geochemical sampling completed - November 2008.
- Next step: drilling asap in 2009





# 2009 Work Plan

## ☛ Limestone Creek Project

- ☛ Drill Leane's Copper - Gold Prospect.

## ☛ Other Minerals Projects

- ☛ Offer farmouts at Mount Morgan.

## ☛ Advance Coal Prospects

- ☛ Begin drilling in the Beaudesert District.



# Forward Looking Statements

The contents of this presentation includes forward looking statements. Such statements relate to future events and expectations and, as such, involve known and unknown risks and uncertainties.

Activities, timetables and outcomes may differ materially from those expressed or implied by these forward looking statements.

Nothing in this presentation should be construed as either an offer to sell or a solicitation of an offer to buy or sell shares in any jurisdiction.



# Moreton Energy Project

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## Overview

November 2008

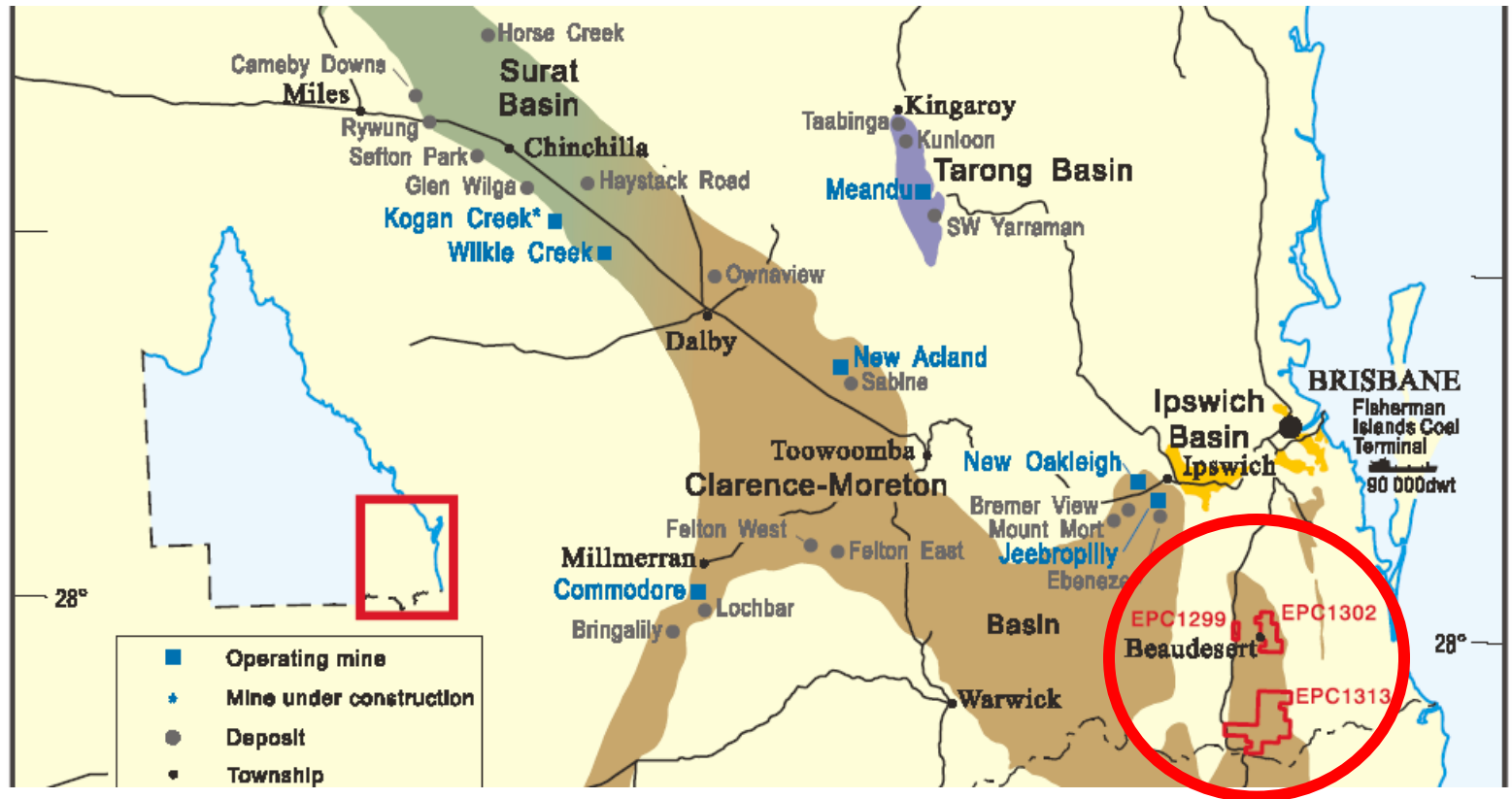




# Overview

Three coal areas in the Moreton Basin, two of which have a history of mining:

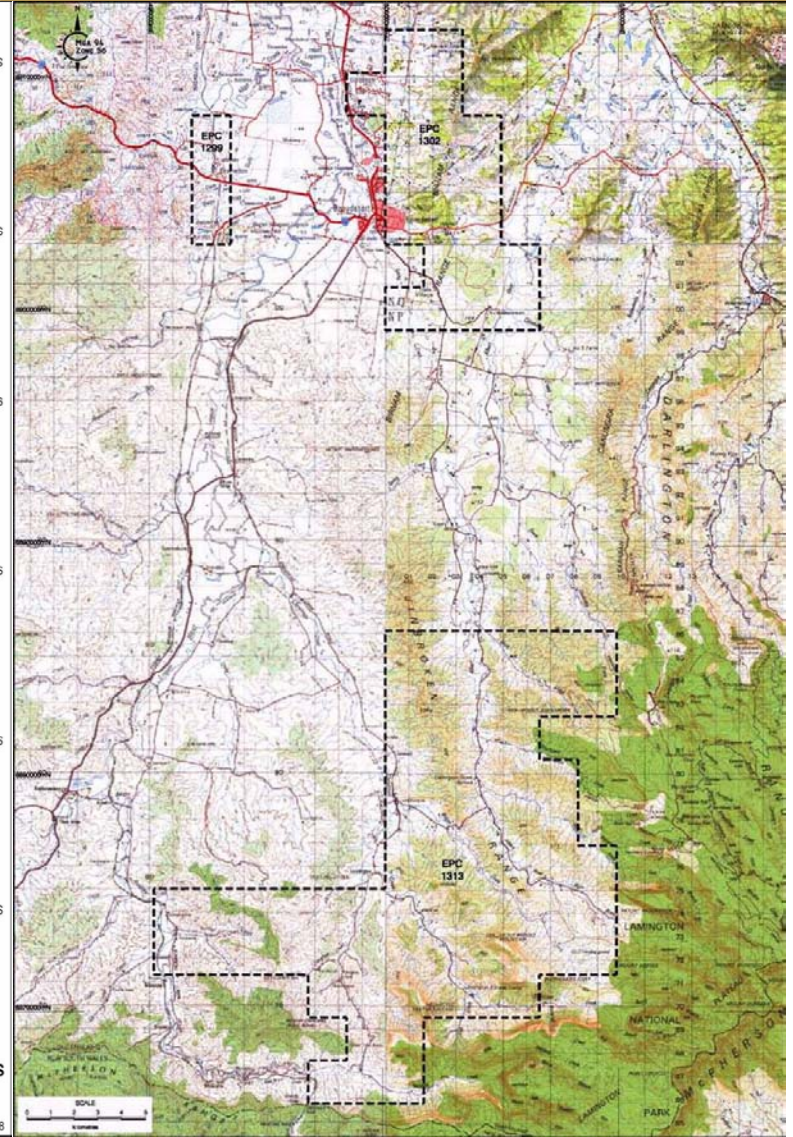
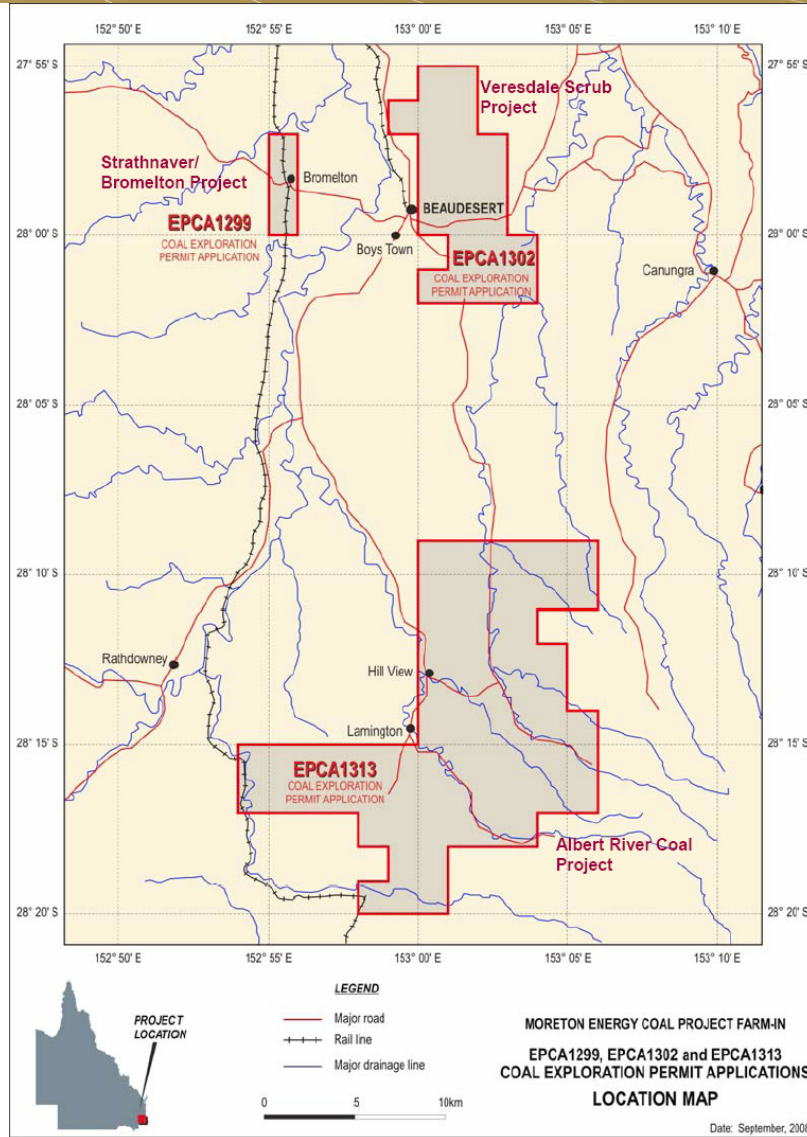
- Veresdale Scrub Deposit (& South) Project (EPC1302)
- Strathnaver Colliery/Bromelton Project (EPC1299)
- Albert River Coal Prospect (EPC1313)



# Project Highlights

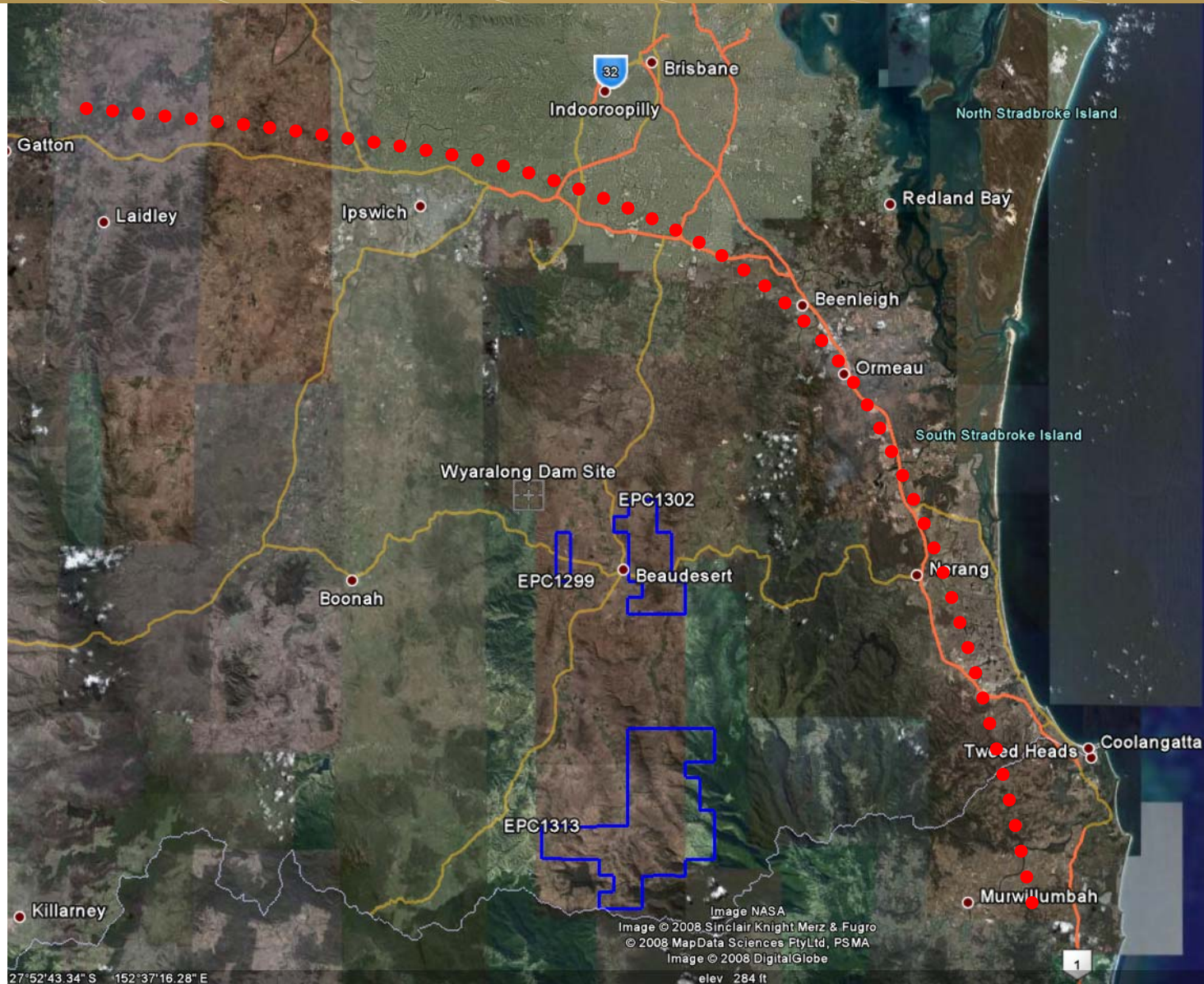
- Moreton project areas are all located strategically on railway infrastructure connected with Brisbane and good road access, good proximity to Brisbane and Gold Coast population centres, close to the Port of Brisbane
- Project areas are prospective for coal, contain the Walloon Coal Measures, and remain considerably underexplored
- An in-situ tonnage of 28.8 million tonnes of thermal coal was identified at Veresdale Scrub of which approx. 60% lies within the Moreton Energy tenements. It is intended to upgrade this tonnage to JORC standard by further exploration. Further it is hoped to extend the coal inventory by identifying additional tonnages within project tenement areas
- Strathnaver project is located strategically in the Bromelton area in South East Queensland proposed as a future State Development Area for heavy and noxious industries
- Coal resource(s) located near to east coast load centre and port infrastructure

# Location of Tenements





# Central to Growth in SEQ Power Load

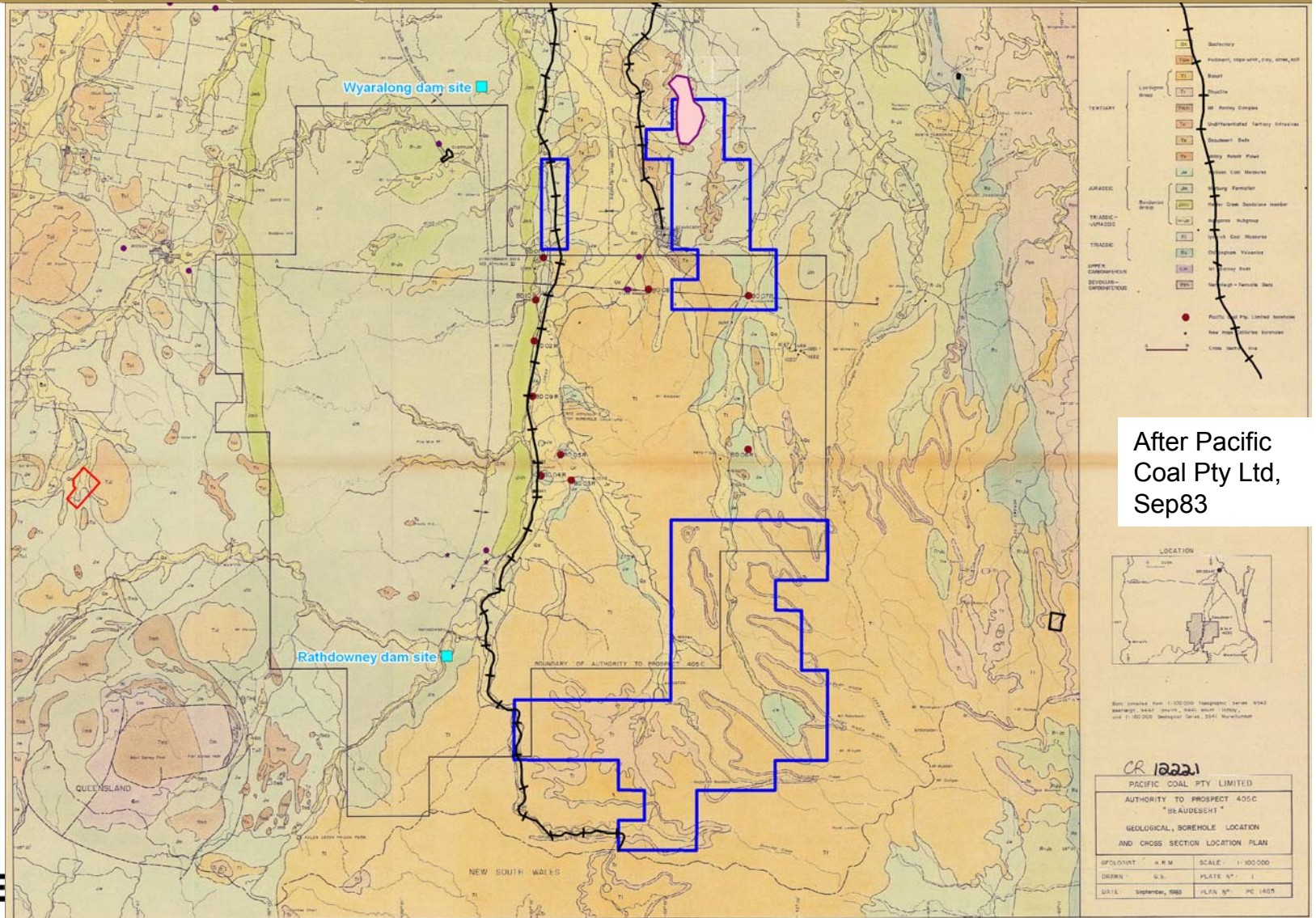


# Geological Setting

- The Moreton Basin is a late Triassic to Cretaceous intracratonic basin, situated in southeast Queensland covering the area between Brisbane and Dalby and south to the Queensland/New South Wales border. The Moreton Basin is partly continuous with the Surat Basin to the west and is part of the Clarence-Moreton Basin which extends southwards into New South Wales
- The Jurassic Walloon Coal Measures contain lower and upper coal zones which consist of abundant thin banded coal seams. These measures have been mined at various locations since the 1870s
- Historically most mining has been undertaken by underground methods. Increased exploration during the 1970s and 1980s has led to the delineation of very large resources and reserves of opencut thermal coal in the Surat and Clarence-Moreton Basins on Queensland's Darling Downs.



# Geological Setting



**LODESTONE**

# Regional Stratigraphy

**EXPLORATION PERMIT FOR COAL 221  
VERESDALE SCRUB AREA - PRELIMINARY EVALUATION**

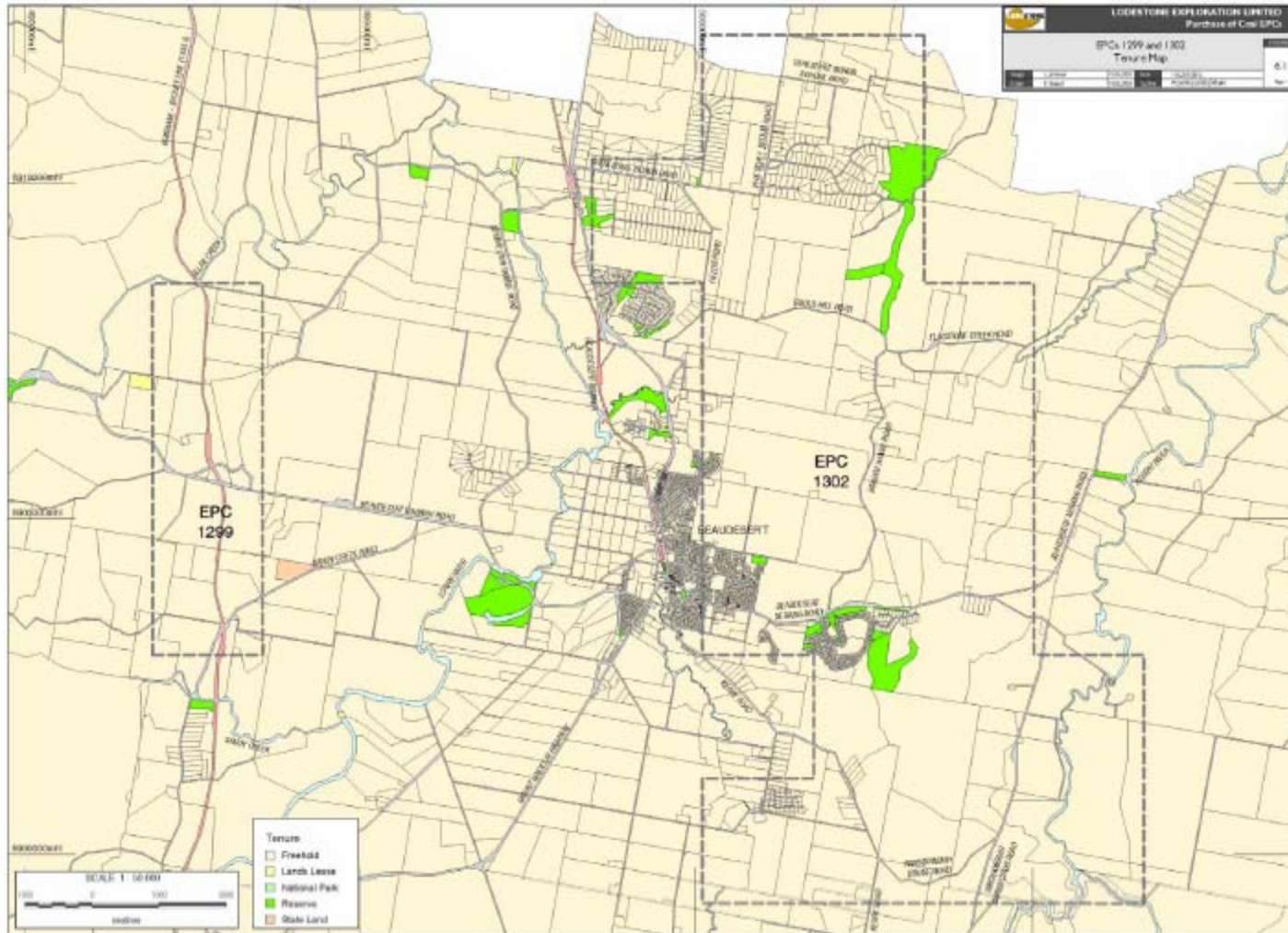
**TABLE 1  
GENERAL STRATIGRAPHY**

TERTIARY	LAMINGTON VOLCANICS	
	BEAUDESERT BEDS	
MIDDLE JURASSIC EARLY JURASSIC TRIASSIC-JURASSIC	WALLOON COAL MEASURES	
	BUNDAMBA GROUP	MARBURG FORMATION
		WOOGAROO SUB-GROUP
		IPSWICH COAL MEASURES
LATE TRIASSIC	? ? ? ? ? ?	
	CHILLINGHAM VOLCANICS	
CARBONIFEROUS	MOUNT BARNEY BEDS	
DEVONIAN-CARBONIFEROUS	NERANLEIGH FERNVALE BEDS	





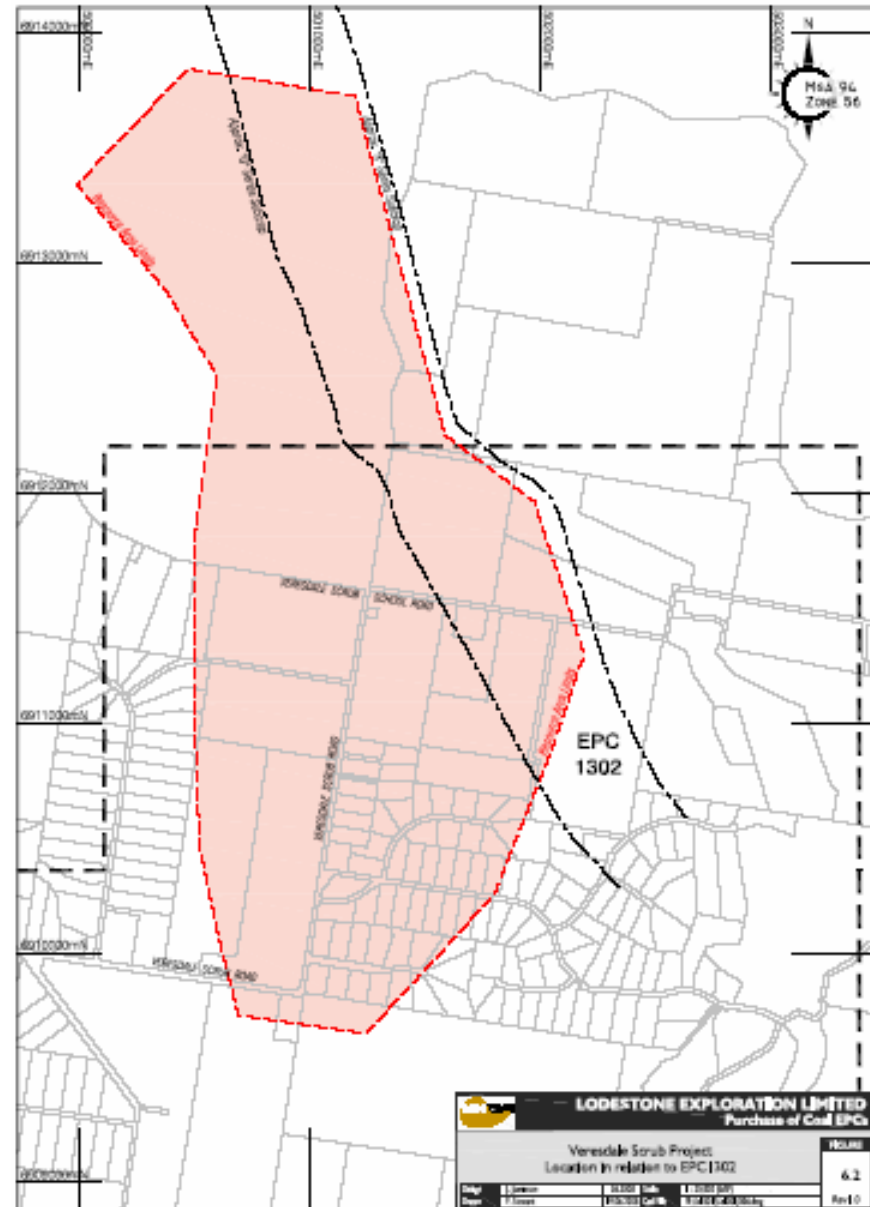
# Veresdale Scrub Project



# Veresdale Scrub Deposit

## Key Highlights:

- 28.8Mt insitu tonnage identified (approx. 60% of which is within Moreton Energy tenements) commencing at 12m depth to at least 100m
- Previous explorer reported that there was also potential for the location of further tonnages down-dip (untested)
- Deposit located next to Beaudesert to Brisbane rail line
- Tenement area includes the abandoned Stansfield's Colliery area.



# Veresdale Scrub Deposit – Structure Contours





# Veresdale Scrub Deposit – Drillhole Locations



# Veresdale Scrub Deposit – Drillhole Summary 1

The quality of data varies with each series of holes.

**a) 1200 and 1900 Series**

The data consisted principally of lithologs based on chip samples. With the 1900 Series some core samples were obtained, however, no geophysical logs are available. As a result the information is generalised only and proved difficult to correlate. Approximate survey data only is available.

**b) 2200 Series**

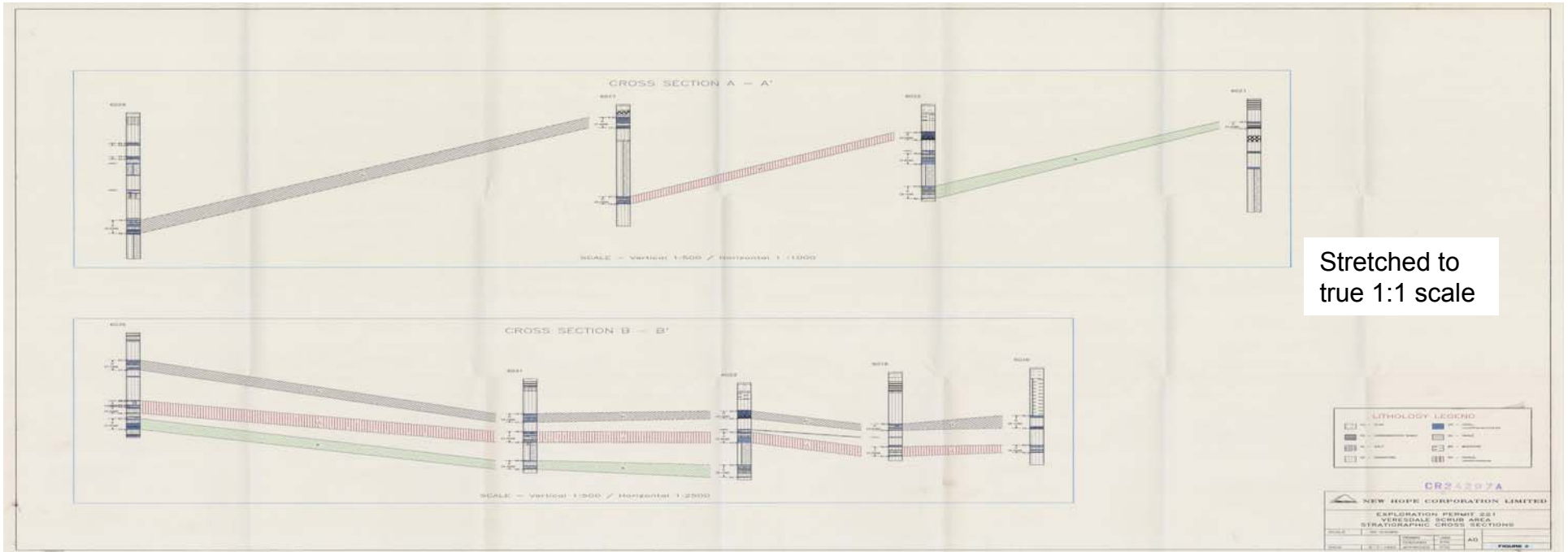
Lithological logs from chips are available as are poor quality geophysical logs. Approximate survey data is available.

**c) 6000 Series**

These holes were logged from chips and geophysically logged. The hole locations are surveyed. The geological model has been based entirely on this set of data.



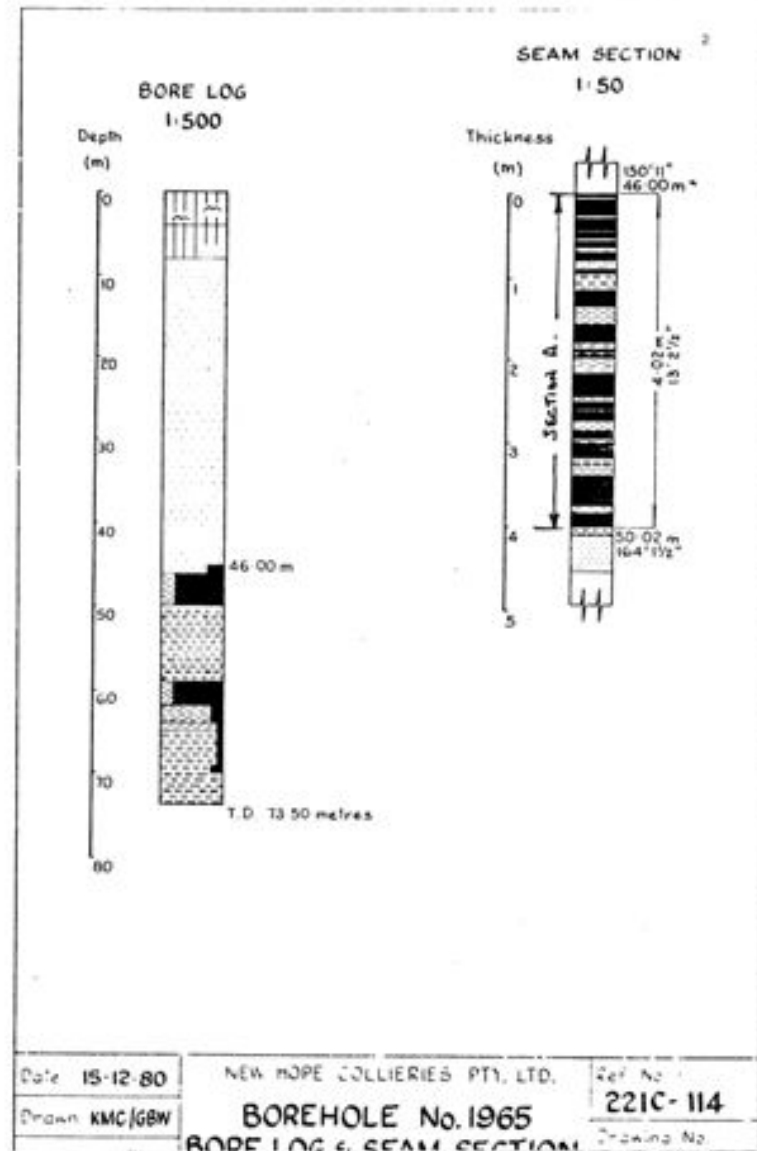
# Veresdale Scrub Deposit – Cross Sections 2



Stretched to true 1:1 scale



# Veresdale Scrub Deposit – Seam Profile



# Historical Mining at Stansfield's Colliery

- Mining took place to the south of the Veresdale Scrub deposit, at the former Stansfield's Colliery, which was operated for around 10 years at the commencement of the 1900s.
- Stansfield's Colliery, on the eastern outskirts of Beaudesert within EPC 1302, operated around the turn of the century and a 1.2m thick seam was worked from a 10m long tunnel set into the side of a hill on Portion 98 near the cemetery. Marks (1910) reported the tunnel to have collapsed by the time he investigated the area in 1910.
- There appears to have been no drilling conducted in the Stansfield's Colliery area by previous explorers.



# Veresdale Scrub & South – Previous Exploration

- New Hope (NHCA) explored the area between 1978 and 1992. Eighty six drill holes were completed, some of which were geophysically logged. Eight holes were partially cored.
- NHCA estimated that 28.2 million insitu tonnes occur from 12m to a depth of 100m, commencing at 12m. To a depth of 40m, there is an estimated 12.4Mt. In its report, New Hope anticipated that these in situ tonnages could be upgraded with further exploration, particularly the in situ tonnage between 40m and 100m.
- NHCA also reported that there was potential for the location of further tonnages down-dip.
- NHCA recommended that future exploration should concentrate on the area downdip of the existing in situ tonnage, despite the fact that the Walloons appear to continue to the south of the Veresdale Scrub deposit area.
- No reason was given in the report (New Hope Collieries, 1992) for not investigating potential shallow tonnages to the south of Veresdale Scrub, but this area had been part of EPC 221 until it was relinquished in 1987, and it is possible the seams may, as is normal with the Walloons, thin and/or lens out to the south.
- Recent discussions with NHCA executives indicate that NHCA relinquished the ground as a result of funding constraints and lower coal prices during the 1990s.



# Veresdale Scrub & South – Veresdale Scrub Coal Quality

- The Veresdale Scrub Deposit contains eight partially cored drill holes.
- The quality information provided by the Veresdale Scrub area identifies the deposit as a typical Walloon Coal. It has high volatile content, high raw ash and low total sulphur.
- The average quality results (probably based on laboratory analysis rather than process simulation) is provided by NHCA based on a 15% ash product, are as follows:

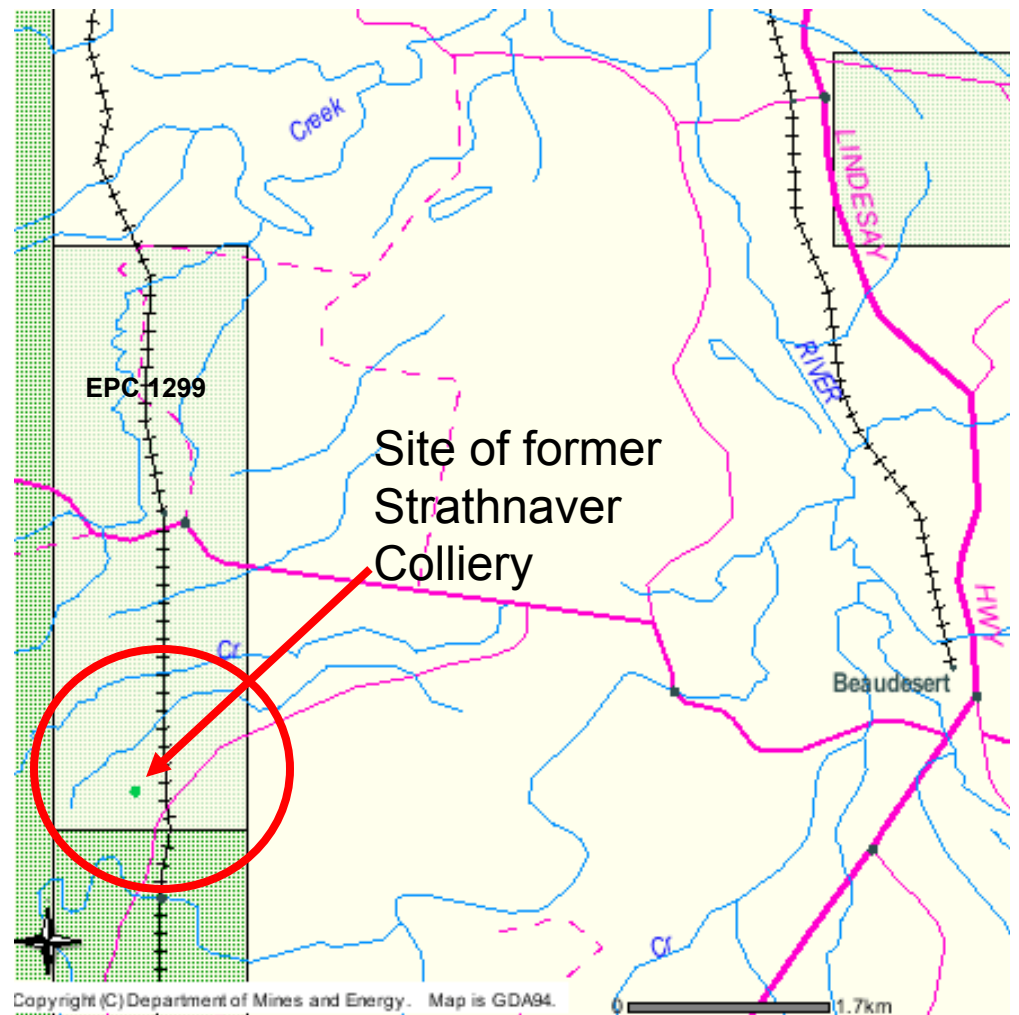
Total Sulphur	0.6%
Yield	65.4%
Inherent Moisture	5.2%
Specific Energy	6,540 Kilocalories/Kilogram



# Strathnaver/Bromelton Project

## Key Highlights:

- Inferred coal inventory/coal occurrence (according to Queensland DME)
- Original colliery located next to interstate railway approximately 9km west of Beaudesert
- Only a single 1.4m thick seam was worked from 1932 until the outbreak of World War Two. The coal was mined from two tunnels in an underground operation
- Tenement located near to the proposed Bromelton industrial area, a proposed State Development Area
- Tenement area covers an area of 9 sq km from the former colliery north, along the interstate railway line



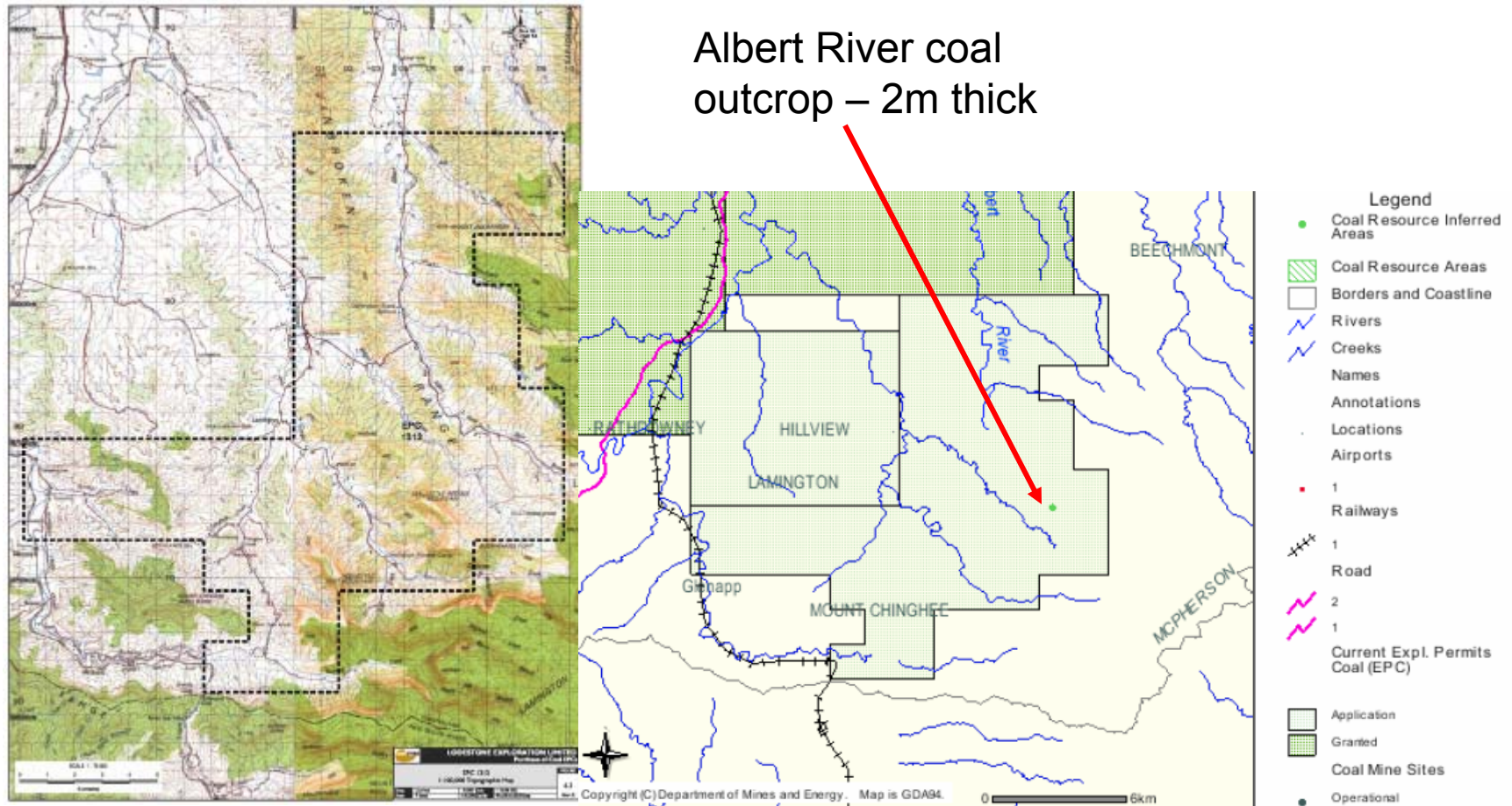
# Strathnaver/Bromelton Project

- Tenements commence in the vicinity of the former colliery and extend north for approximately 5.6km to Allan Creek. Boonah-Beaudesert Road (east-west) and the interstate railway (north-south) intersect in the central area of the tenements
- Sediments of the Walloon Coal Measures strike north-south through the EPC, dip to the east, and crop out, possibly at shallow depths. NHCA drilled a few holes in the area and intersected a 3.5m thick, banded seam that was thought to dip gently to the east. Pacific Coal drilled one hole along the southern boundary of the EPC to a depth of 166m and intersected 2.2m of coal and mudstone (estimate 65% coal) at 12m and 8.8m of coal and mudstone (estimate 40% coal) at 52m
- Although EPC1299 is largely unexplored, the EPC does have potential to host coal resources at shallow depth in an area that has been set aside as an industrial area





# Albert River Prospect



# Albert River Coal Prospect

## Key Highlights:

- EPC 131 is located approximately 30km south of the township of Beaudesert comprising 66 sub-blocks near the New South Wales border and is shown in Figure 6.3
- The Walloon Coal Measures are generally overlain by tertiary basalts within EPCA 1313, except in a sizable window in the south-east where there is potential for shallow, good quality coal resources
- Among other coal occurrences, the area is known to host a 2m thick outcrop of coal at the headwaters of the Albert River. DME records describe this deposit as Albert River inferred coal resource area, 7.7km SE of Millview, Jinbroken Range
- The western edge and south of the EPC is traversed by the interstate railway line (the same line that runs through Strathnaver/Bromelton to the north) and continues to the Port of Brisbane
- The area is sparsely-populated open farmland and some undulating country that is accessible via a number of minor roads
- EPC 1313 is located immediately south of EPC 1109 held by Carbon Energy and wraps around the eastern and southern sides of EPC 1123 (Moreton), which is under application by Ansett Resources.

# The Way Ahead

- Initial program of step-out drilling and downhole logging to extend the in-situ tonnage at Veresdale Scrub
- Selected follow-up slimcore redrills and analytical testing to enhance the in-situ tonnage to JORC resource status
- A program of 2D seismic acquisition with follow-up control drilling to identify the seismic reflectors to extend the coal unit geometry across the tenements
- Selected slimcore redrills, step out drilling and testing to define newly discovered deposits
- Coal deposit modelling
- Conceptual mine development planning
- Marketing



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