

# Petratherm Ltd

105 Tusmore Ave, Tusmore, 5065, South Australia  
Tel: +61 8 8304 8200 Fax: +61 8 8304 8201  
Website [www.petratherm.com.au](http://www.petratherm.com.au)  
Email [admin@petratherm.com.au](mailto:admin@petratherm.com.au)  
A.C.N. 106 806 884



Thursday September 7<sup>th</sup> 2006

## **Paralana Test Well Confirms Geothermal Resource**

Petratherm is pleased to announce that temperatures recorded at its Paralana Geothermal Test Well indicate that there is potential for establishing an economic geothermal resource.

Temperature measurements taken on 30<sup>th</sup> and 31<sup>st</sup> August 2006, recorded a bottom-hole temperature of 109°C at 1,807 metres.

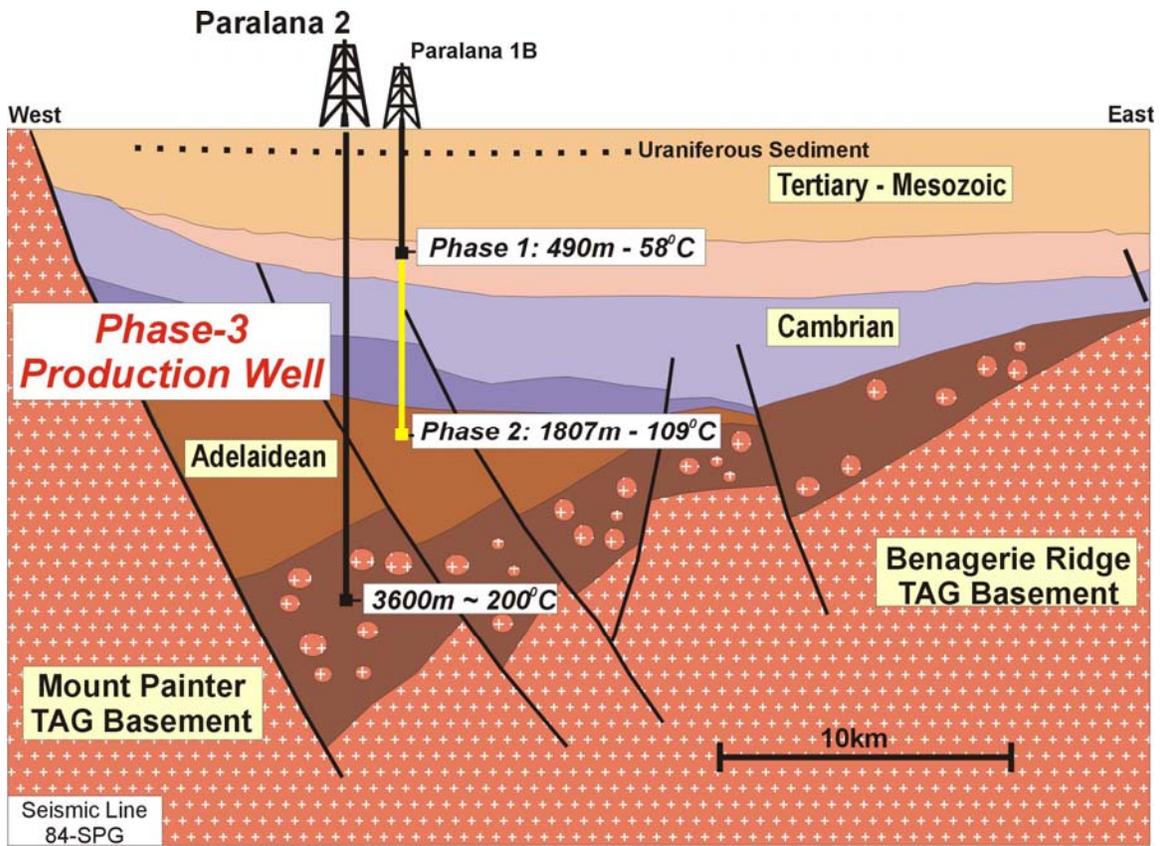
The average geothermal gradient for the entire hole is 50°C per kilometre. Petratherm's benchmark for economically viable electricity generation is a temperature of 200°C, or more, at a depth of 3.5 to 4 kilometres. The temperature gradient in the deepest 200 metres of the current well (Paralana 1B) is the same as the average temperature gradient from the surface to 1807 metres, i.e. 50°C per kilometre. Continuation of the measured average geothermal gradient of 50°C per kilometre suggests that a temperature of 200°C should be attained at approximately 3.6 kilometres.

This result is world class and amongst the best recorded in Australia. The temperature results have not only confirmed the large heat resource at Paralana but have also vindicated Petratherm's unique Exploration Model which aims to identify shallow geothermal resources close to market.

The diagram below shows the measured and expected temperatures following each stage of drilling. Phases 1 and 2 are now complete and the Paralana Geothermal Test Well will become a seismic monitoring well for future reservoir development.

The Board of Petratherm can now confidently consider the feasibility of drilling two new deep wells (i.e. Phase 3) to establish the expected thermal resource, undertake circulation tests and establish an underground heat exchanger.

Petratherm has developed a unique strategy to lower risks and costs of both drilling and circulation processes by engineering the underground heat exchanger within the insulating rocks above the high heat producing granites (the HEWI model). The drilling and circulation work will be a precursor to constructing an electricity generation plant (of around 7.5 MW) to supply local demand.



**Figure 1** Geological cross section of the Paralana Project Area, outlining the recent and future development program.