

PETRATHERM LIMITED
ABN 17 106 806 884

Victorian, East Gippsland, Geothermal Exploration Permit Awarded to Petratherm

- *The Company has been awarded a 9,000km² Geothermal Exploration Permit (GEP) in Victoria's East Gippsland Basin to develop a Hot Sedimentary Aquifer (HSA) geothermal project*
- *Preliminary economic analysis indicates that the project is capable of producing commercially viable, large scale base load, power generation*
- *The Victorian Government has established a \$72 million fund for large scale renewable demonstration projects and will make a call for applications in late 2008.*
- *The Company plans a phased exploration program over the next 5 years commencing with magneto-telluric and seismic work, followed by production well drilling, reservoir development and closed loop circulation testing*

Hot Sedimentary Aquifer Geothermal Project

The Company is pleased to announce that it has been awarded the grant of Geothermal Exploration Permit 24, by the State Government of Victoria.

The Permit covers an area of 9000 square kilometres, which covers the onshore component of the Gippsland Basin (Bairnsdale - Lakes Entrance area) which is prospective for Hot Sedimentary Aquifer (HSA) geothermal resources for power generation (Refer Figure I below).

The exploration model targets potential permeable reservoir sequences which may contain brine fluid in excess of 150°C at economically viable drill depths (3.5–4.0 kilometres). Geothermal target areas within the tenement area are well located close to significant power station and transmission infrastructure.

The Company understands that the highly prospective East Gippsland Tenement was strongly contested by a number of competitor companies.

27 November 2008

ASX Code: PTR

ABN 17 106 806 884

105-106 Greenhill Road
Unley SA 5061

T: +61 8 8274 5000

F: +61 8 8272 8141

W: www.petratherm.com.au/

E: admin@petratherm.com.au

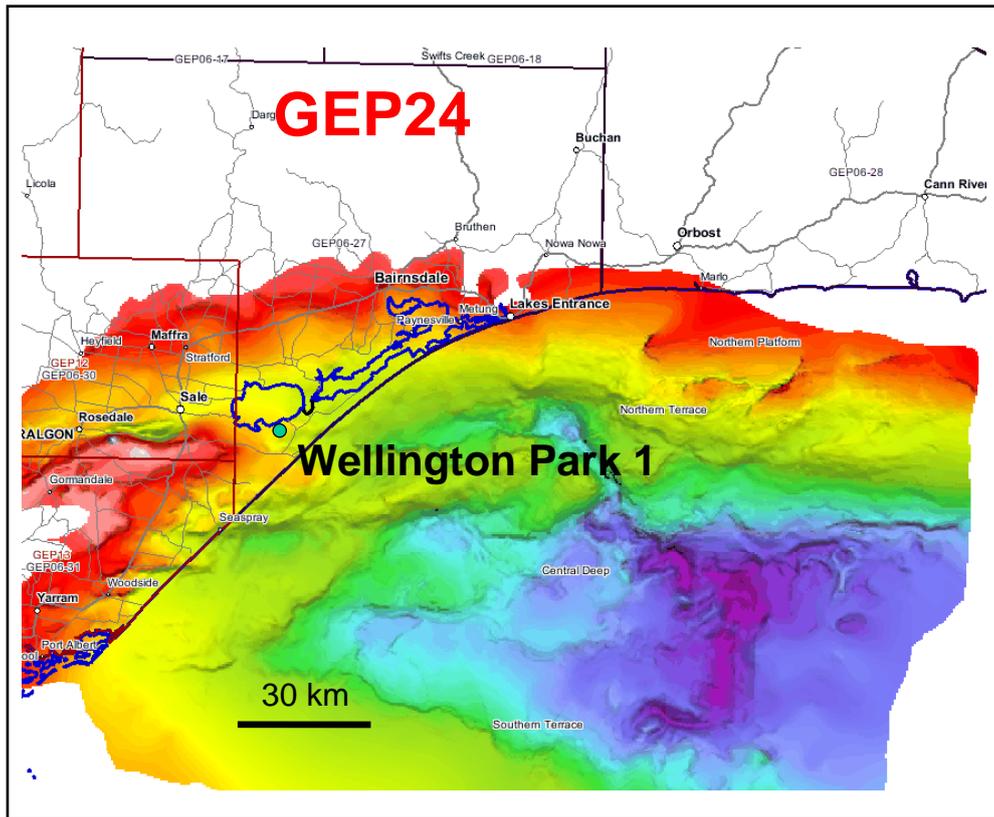


Figure 1. Extent of Gippsland Basin (psuedo-colour image), GEP24 licence area, and location of the Wellington Park I Well.

Strong Victorian Government Support for Renewable Energy

The Victorian State Government has a track record in encouraging the development of renewable energy and has recently established, under its Energy Technology Innovation Strategy, a \$72 million fund for Large Scale Renewable Demonstration projects. A call for applications will be made later this year with final applications to be submitted late in calendar 2009.

In relation to geothermal energy, there has been a number of initiatives undertaken by the Victorian Government, including clear legislation and regulation, and the coordination across various government departmental programs (water, energy and permitting) that make the market and regulatory environment attractive in which to develop new projects

Preliminary economic analysis is very encouraging

Published analysis by the Victorian Department of Primary Industries into the State's geothermal energy resources demonstrated the potential for electricity generation, with evidence of low to mid enthalpy sedimentary aquifers in both the Otway and Gippsland Basins. Petratherm's internal geological, economic and permitting review of the licence area indicates that a medium (30 MW) to large (200 MW+) geothermal power development could produce power at a cost of less than \$100 MWh. The current and future Victorian pool price for electricity, combined with the current and forecast price of renewable energy certificates (RECs), or future carbon price under an emissions trading scheme (ETS) indicate that a commercially viable geothermal power development is achievable.

High Geothermal Fluid Temperatures at reasonable depths

Approximately 50 wells have been drilled in the eastern onshore Gippsland Basin area where temperature and some continuous geothermal gradient data have been captured by the Victorian Department of Primary Industries. In the Lake Wellington/Lakes Entrance area a cluster of deep wells provides an accurate view of likely geothermal gradient at depths >3000 metres. High geothermal gradients have been reported which imply temperatures in excess of 150°C lie at depths of approximately 3500 metres. The Lakes Entrance coastal fringe region appears to be particularly promising. The Wellington Park 1 well drilled to 3660 metres is the deepest in the region (Refer Figure 1). Several temperatures were measured in the well. The temperature recorded from logging tools at 3660 metres was 136°C and the estimated equilibrium bottom hole temperature is estimated to be 163°C in the absence of the cooling effects of drilling.

Favourable potential for Circulation System

The target reservoir rocks in the Lake Wellington/Lakes Entrance area are the Tyers Conglomerate and the Rintouls Creek Sandstone, which unconformably overlie the Paleozoic basement in the licence area. These have not been intersected in the licence area; however outcrop samples to the west demonstrate some primary permeability and high porosity. In the vicinity of the Wellington Park 1 well seismic data indicates that the favourable horizon is at 3500–4500 metres depth (Refer Figure 1).

Another potential reservoir horizon is situated in the top section of Paleozoic basement rock and along the basin floor surface. The topmost basement (possibly palaeo-weathered) may yield high secondary fracture permeability as demonstrated in operating Engineered Geothermal Systems at Soultz and Landau in the Rhine Graben of Europe.

Proposed Development Strategy

The first stage of works will involve delineation of target sites based on re-evaluation of existing seismic data and targeted magneto-telluric and possibly further seismic ground survey work. As there is an established understanding of the regional temperature gradient at depth and good geological control from historical drilling and seismic survey work there is no requirement to undertake shallow gradient test wells. The work program comprises the drilling of a production grade deep well (3.5–4.0 kilometres) in year three of the licensing period, reservoir development, and then, a second deep production grade well in year five in order to test closed loop circulation of the potential geothermal system.

Yours faithfully



Terry Kallis
Managing Director

MEDIA CONTACTS:

Terry Kallis	Petratherm Ltd	08 8274 5000
Jenny Brinkworth	Hughes Public Relations	08 8412 4100