

Petratherm 2010 – Company and Projects Update

*South Australian Resources and Energy
Investment Conference*

Presented by Exploration Manager Peter Reid

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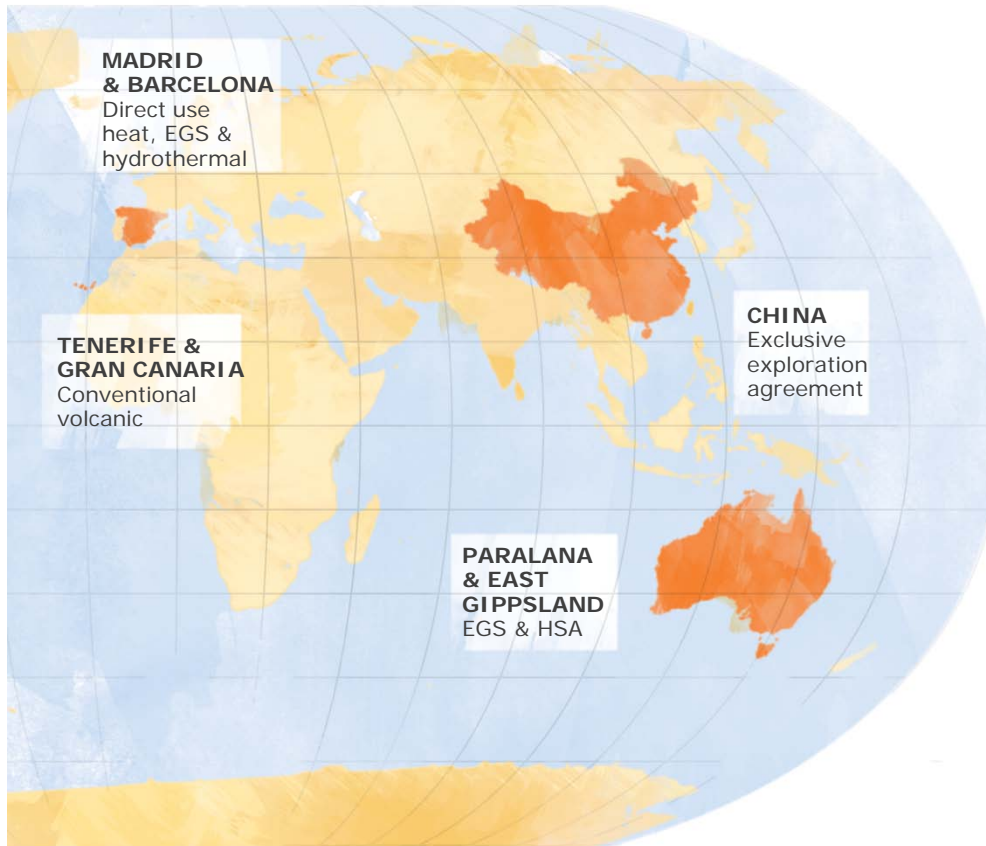
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All amounts in Australian dollars (AUD) unless stated otherwise.

Petratherm overview



Our company

- > Leading Australian geothermal exploration and development company
- > Projects spanning Australia, Spain and China
- > Projects across the spectrum of geothermal technology
- > Flagship project – Paralana in SA's northern Flinders Ranges

Petratherm - Corporate and financial

Listed ASX:PTR

- > Shares on Issue: 108 m
- > Share Price: \$0.23 (3 May 2010)
- > Market Cap: \$ 25 m
- > Cash Position: \$ 1.6 mill (31st March)
 - + \$ 4.1 mill from recent capital raising
- > Shareholders: 3,717 shareholders
 - > Minotaur Exploration 19 %
 - > Australian Ethical Investments 4 %

Paralana JV Funding and Grants

- > JV Funding: up to \$87 million plus equity share of project costs
- > Government grants of \$69.8 million toward drilling and commercial demonstration



Our board



Derek Carter
Chairman



Simon O'Loughlin
Director



Richard Hillis
Director



Richard Bonython
Director



Lewis Owens
Director



Terry Kallis
Managing Director

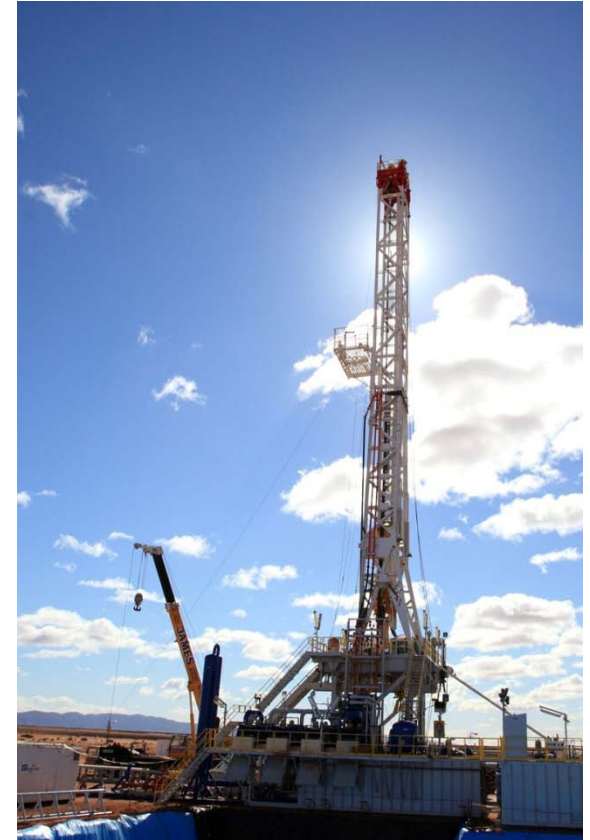
Skills and capabilities

- > Financial Management
- > Legal
- > Marketing
- > Project Management
- > Corporate Governance
- > Exploration and Development
- > Geology and Geophysics
- > Resources and Energy
- > Government and Stakeholder relations

Business model

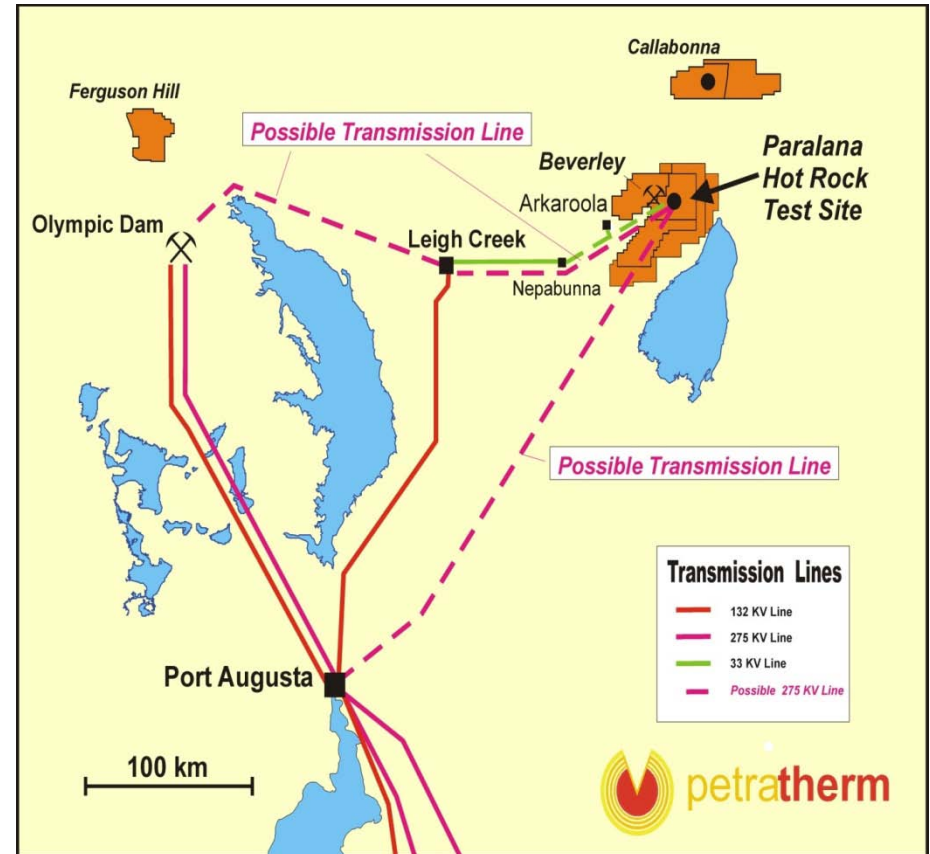
“Explore for and develop emission free geothermal energy projects that are commercially sustainable”

- > Explore both conventional and engineered geothermal systems – for power and heat
- > Find a favorable combination of geology and market conditions - *“shallow hot rocks close to market”*
- > Introduce joint venture partners with the right skills, risk appetite and funding ability



Paralana Project – Commercial Overview

- > Commercially viable at all stages. Small off grid market (5-30MWe) (Heathgate) followed by large on grid development (260 MWe+)
- > Expenditure well leveraged for proof of concept, then potentially fully funded to initial commercial demonstration scale 30MW plant
- > Funding and expertise from JV Partners, Beach Petroleum (up to 36 per cent for \$30m) and TRUenergy (up to 30 per cent for \$57m)
- > Strong Federal Government grant support - \$7 million geothermal drilling fund and \$62.762 million REDP grant

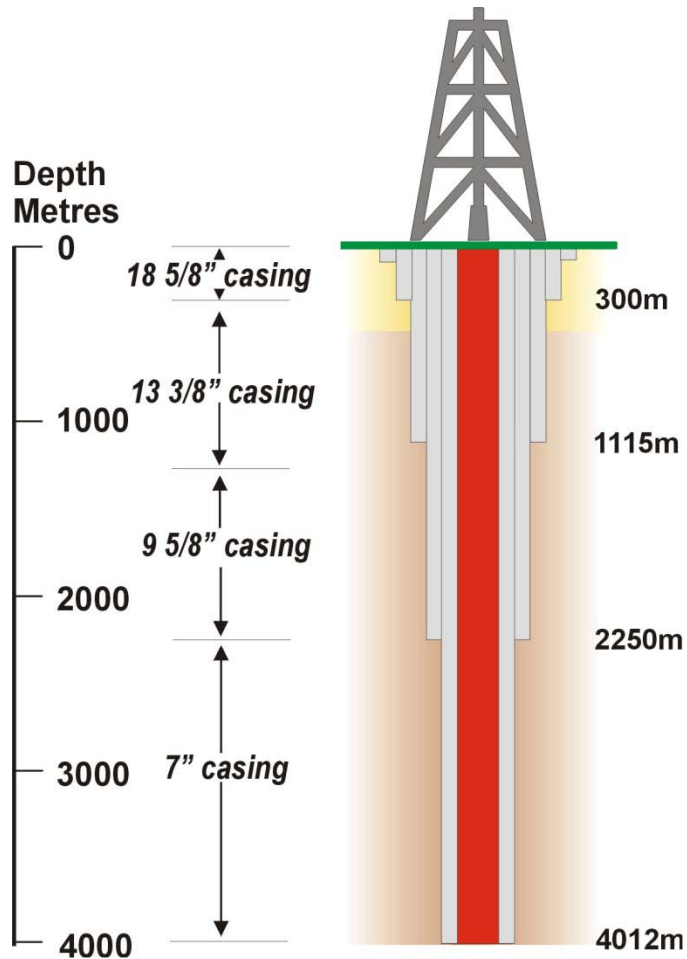


Paralana 2 – Drilling

- > **New Weatherford Owned
2000HP Le Tourneau
Lightning Rig**
- > **57 metres high ~ 10 Stories**
- > **Arrived at Port Pirie 11 May 09**
- > **85 Semi-Trailer Loads**
- > **Spudded June 30, 2009**



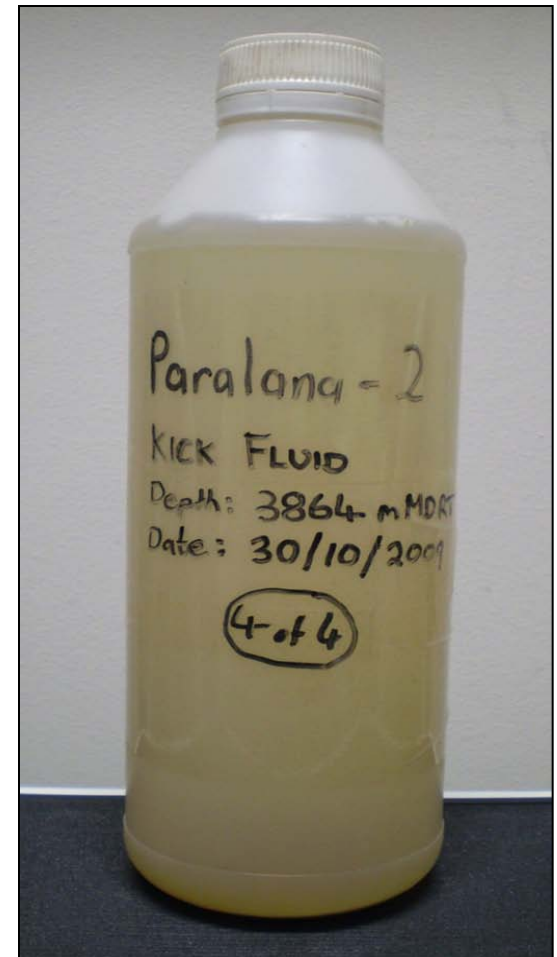
Paralana 2 – Drilling finished to 4012 M – 9 Nov 2009



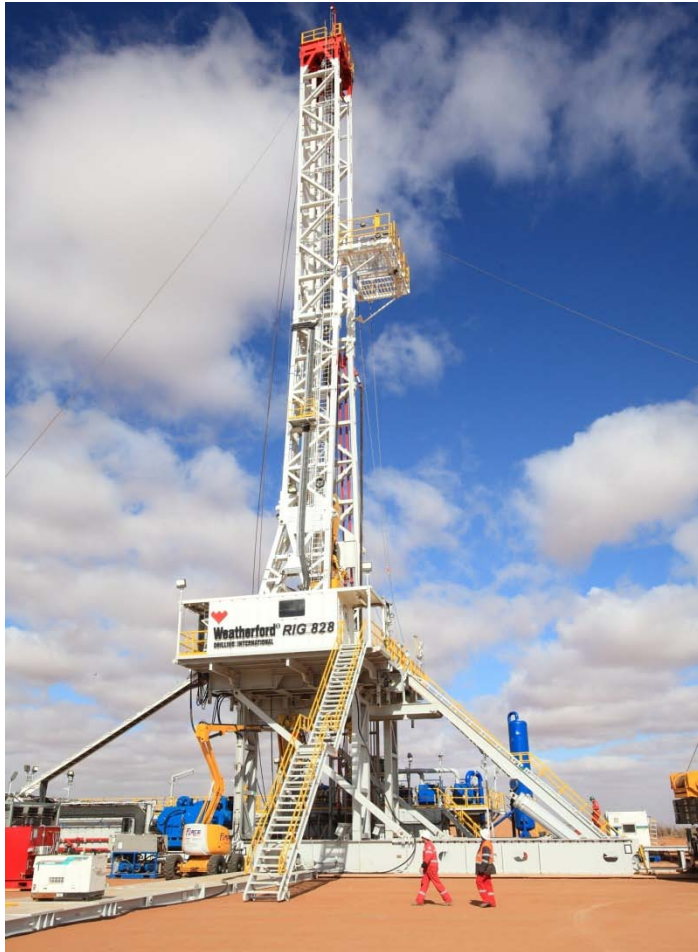
- > First well designed following low-risk, standard operating methods
- > Steady but slow drilling due to hard formations
- > Conservatively drilled to ensure success to 4012m
- > Wireline and LWD logging completed
- > Well cased and cemented to 3725m
- > Bottom hole temperature ~ 190°C
- > Inflow zones encountered from 3690m

Paralana 2 – Reservoir Characteristics

- > Inflow zones from 3690m
- > Zr dating confirms old 1590Ma Reservoir Sequence
- > Contains numerous fractures and faults
- > High pressure geothermal brines intersected
- > 2D Seismic suggests fractured reservoir sequence is regionally extensive



Current Planned Future Work Program



- > 2nd Qtr 2010: Well perforation and Injectivity test
- > 3rd Qtr 2010: Fracture stimulation – ***link into over pressured zone!***
- > 4th Qtr 2010/1st Qtr 2011: Drilling of the Paralana 3 deep producer well
- > 2nd Qtr 2011: Circulation Test – Proof of Concept
- > Late 2011: Commission first stage 3.75 – 7.5 MW power plant

Project joint venture – cost estimates (assumes JV earn-in options exercised)

	<i>Project JV costs</i>	<i>PTR cost</i>
> Proof of Concept - next steps		
> Fracture stimulate – Paralana 2	\$2m	\$1.4m ¹
> Drill producer well – Paralana 3*	\$15m - \$18m	\$2.1m - \$4.1m ²
> Fracture stimulate/circulate	\$2m	\$1.4m ³
	\$19m - \$22m	\$4.9m - \$6.9m
> Produce Power – up to 7.5 MW**	\$45 m	\$ 0.4m
> 3.75 MW plant		
> Substation & transmission line		
> 2 nd producer well & 3.75 MW plant		
> Upscale to 30 MW demonstration**	\$155m	\$0.0m
> additional wells and generation plant		

(* \$2.8 million in funds available from GDP grant for Paralana 3 well)

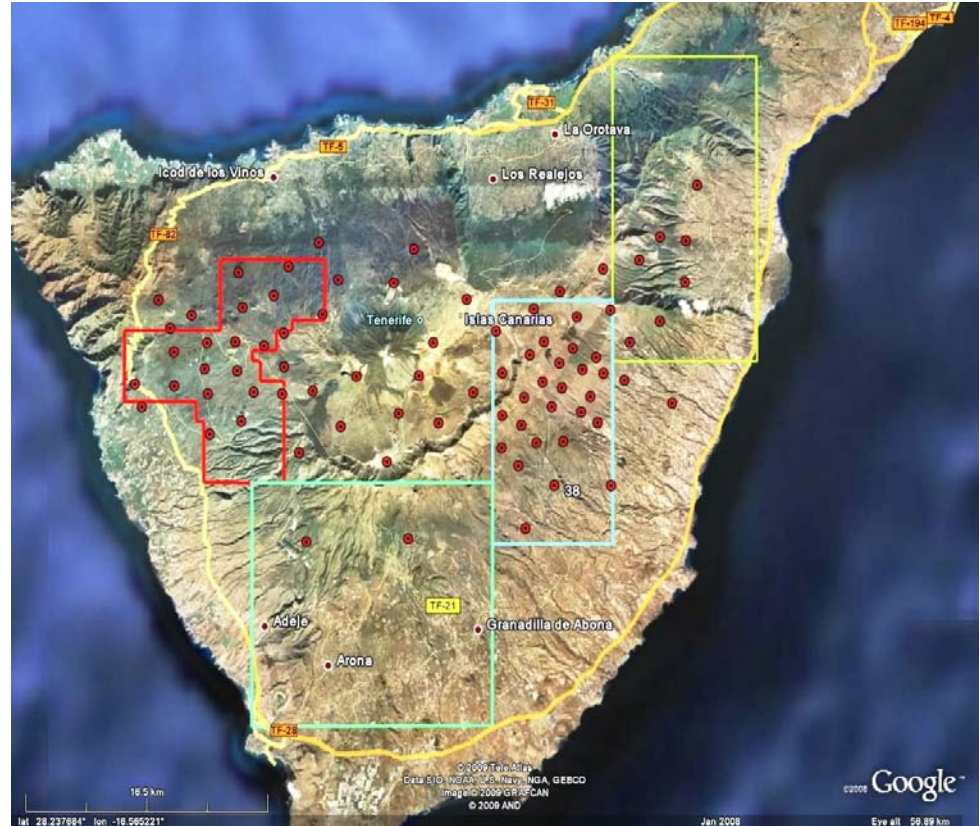
(** \$62.8 million REDP grant provides one third payment of capital costs)

(1 – May- July 2010)

(2 – Jan-April 2011)

Spain – Enel Green Power deal

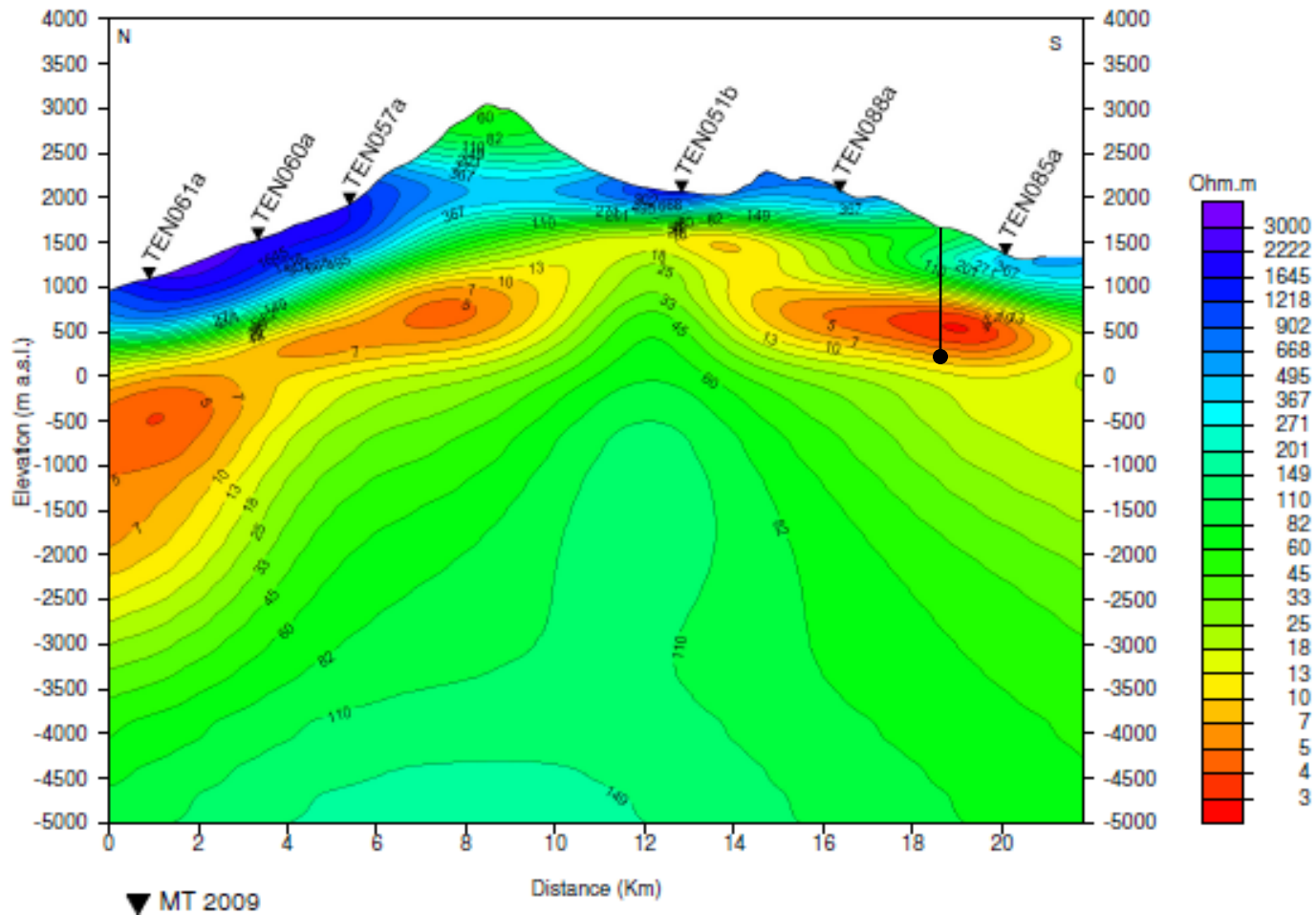
- > Enel Green Power has more than 700 MW of operating geothermal plants
- > Joint development of all electricity producing projects in Spain and Portugal
- > Portugal has feed in tariff of over €280/MWh (\$420/MWh) for geothermal energy
- > Direct and external exploration costs shared 50:50
- > **Enel fund the first deep exploration well – \$15 million**



Tenerife Licences and MT survey stations



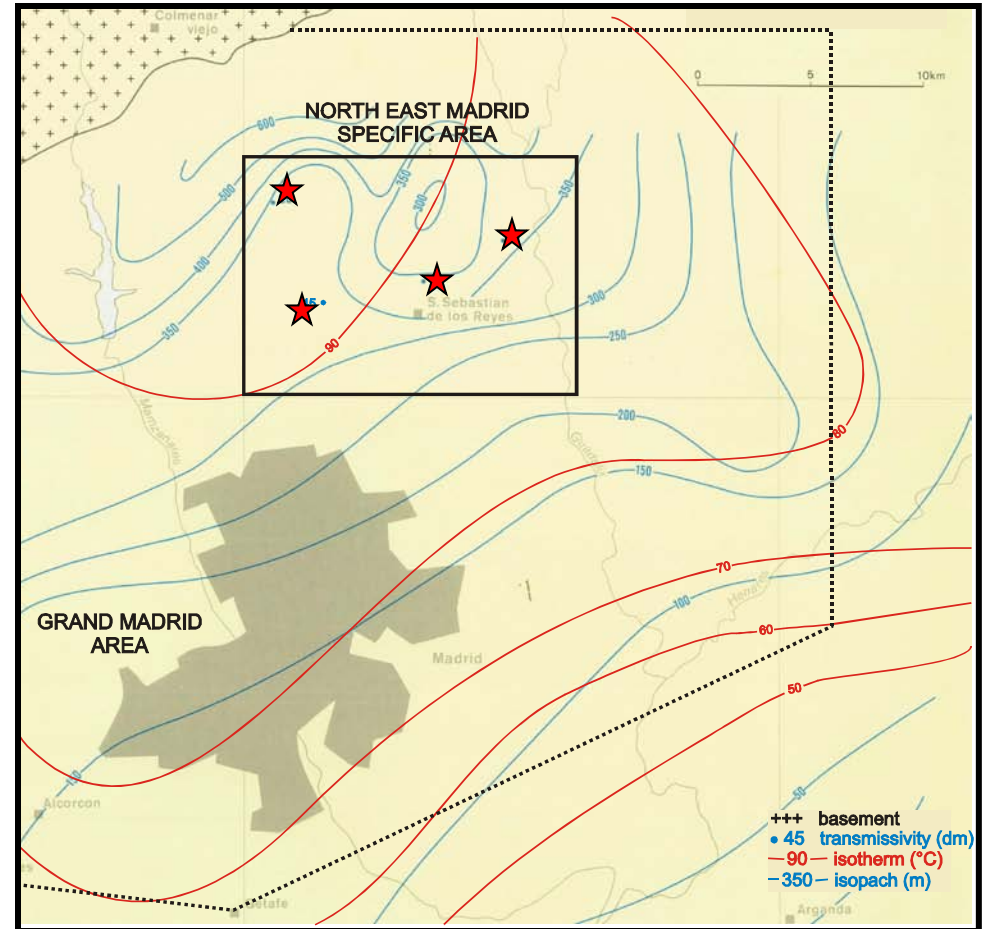
Tenerife MT Results



Slim line drill target, 1500-2000m to base of conductive layer

Spain – Madrid geothermal district heating (GDH) project

- > Geomadrid 1 Well - at 1550m is 75°C fluid at 200 m³/hr flow
- > Initial demand study identified 38,000 Mht/yr market
- > Agreement with Spanish Federal and Madrid Regional Governments to promote development
- > Load Match Engineering ~
 - 42% Geothermal
 - 33% Heat Pump condenser
 - 25% Peak load gas boilers
- > Advanced JV negotiations



Heliotherm – a unique solar thermal R & D project

- > Heliotherm Limited is a 100 per cent subsidiary of PTR awarded two SA government grants for a total of \$1.5 million
- > Exclusive agreement with University of Adelaide to develop the solar thermal technology that combines with geothermal and gas
- > Project aims to reduce capital costs by 40% through innovative integrated boiler
- > Plan to secure additional Federal Government grant – \$5.0 million targeted



Professor Graham
(Gus) Nathan – Director
Centre for Energy
Technology of the
University of Adelaide

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