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SERVICES
Exploration
Rock Property Measurements
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Geothermal Energy Potential in Selected Areas of Western Australia (Perth Basin)

A report prepared for the Department of Industry and Resources, Western Australia.

17 August 2008

Executive summary

Hot Dry Rocks Pty Ltd (HDRPL) was commissioned by the Department of Industry and Resources (DoIR), Western Australia, to appraise the geothermal potential of the Perth Basin as part of RQF DOIR0060108. A total of 250 wells were assessed in accordance with the quotation, 170 of which were assessed in detail for heat flow modelling and temperature prediction. Of these 170 wells, 162 had sufficient data to enable the modelling of heat flow.

The principle findings of this report are:-

- Measured rock thermal conductivities for 36 core samples collected from the Perth Basin range from 1.31–7.01 W/mK. These data were crucial in the development of 1D heat flow models to predict the depth to specific isotherms.
- Despite these new data, thermal conductivity remains the major source of uncertainly in heat flow calculations and temperature projections. HDRPL has necessarily made certain assumptions about conductivity in this broad review. The results are valid so long as these assumptions hold true.
- HDRPL used measured values for the conductivity of coal measures, based on samples obtained from the DoIR core library, but the assumption of a single characteristic conductivity value is unlikely to hold for the coal measures. The heat flow values and temperature projections for wells containing significant proportions of coal measures are, therefore, of lower reliability than other wells.
- Modelled surface heat flow in the Perth Basin ranges from 30–140 mW/m^2, with a median of 90 mW/m^2 for all wells, and a median of 76.5 mW/m^2 for single wells/fields. HDRPL regards 76.5 mW/m^2 as more representative of the basin as a whole. The Australian median value is 64.5 mW/m^2 from the global heat flow database.

- The distribution of heat flow values is influenced by well temperature data quality. Lower quality data are biased towards underestimating the true temperature within the well.
- Heat flow appears lowest in the southern part of the basin (Bunbury Trough) and shows an apparent increase towards the north, reaching inferred values >90 mW/m^2 north of Eneabba. A notable change in apparent heat flow north of latitude 30°00' could be due to an increasing influence of buried granites of the Northampton Complex.
- Temperature projections from heat flow models reveal a number of areas north and south of Perth where the 150°C isotherm may lie at <5 km depth. These may be areas of increased Engineered Geothermal System (EGS) prospectivity, depending on the suitability of target lithologies for fracture stimulation.
- North of Lancelin-Jurien Bay, the 150°C isotherm is modelled at <4000 m in places, becoming increasingly shallower (<3000 m) towards Eneabba and Dongara. In some of these areas, the inferred 150°C isotherm is coincident with Permian-Jurassic sedimentary units. Where a suitable lithology preserves natural permeability, there may be potential for Deeply Buried Sedimentary Aquifer (DBSA) geothermal systems here.
- Available tectonic stress data suggest that the stress state in the Perth Basin is transitional between strike-slip and reverse with the principle horizontal stress trajectory (S_{hmax}) oriented E-W. Fault systems oriented at ~30° to this trajectory may be targets for enhanced fracture permeability. HDRPL recommends 3D numerical stress modelling to properly assess conditions required for fracture reactivation.

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1. Introduction

The Department of Industry and Resources (DoIR) provided HDRPL with basic data for 250 wells in the Perth Basin, including scanned log headers, bottom hole temperatures (BHTs) recorded in wells, geological and geophysical reports, and other relevant data. HDRPL was commissioned to utilise these data to address the Scope of Services (Section 2.2 of the RQF) for the following topics:-

A. For 170 wells, not previously studied (Attachment A), provide the following information:-

- determine depth of basement at the well locations
- identify basement lithology from existing geophysical data
- calculate the heat flow capacity of the basement rock samples
- verify geothermal data and extrapolate temperature to the basement
- generate isotherm maps at 100°C, 150°C and 200°C

B. For 80 wells, previously studied (Attachment B), provide the following information:-

- determine depth of basement at the well locations
- identify basement lithology from existing geophysical data
- calculate the heat flow capacity of the basement rock samples

In addition to this, HDRPL was also requested to compile and comment on the adequacy of data on the current *in-situ* stress field in areas of potential interest for Engineered Geothermal Systems (EGS).

2. Perth Basin Geological Setting

The Perth Basin is a north-northwesterly oriented rift basin extending approximately 1000 km along the western margin of south-western Australia, between latitudes 27°00'S and 34°30'S. It is comprised of a series of sub-basins, troughs, shelves and ridges containing predominantly Early Permian to Late Cretaceous sedimentary sequences up to 15 km thick (Freeman and Donaldson 2006[1]). The Basin extends from the Darling Fault in the east, which marks a discontinuity between the Phanerozoic sediments of the basin and the Precambrian rocks of the adjacent Yilgarn Craton, to the edge of the continental shelf to the west. To the north the basin grades into the Southern Carnarvon Basin. Precambrian rocks of the Pinjarra Orogen underly the Perth Basin. These crop out as fault bounded mid-basin ridges in the Leeuwin and Northampton Complexes (Mory *et al*., 2005[2]).

The Perth Basin is structurally complex and formed during the separation of Australia and Greater India in the Permian to Early Cretaceous. The structural architecture of the Perth Basin is the product of oblique rifting during the Permian, Late Triassic to Early Jurassic and Middle Jurassic to Early Cretaceous, superimposed over pre-existing basement terrains (Mory and Iasky, 1996[3]). Extension during the Permian produced the series of deep, north-south trending rift basins (Bunbury Trough and Dandaragan Trough) along the western margin of the Yilgarn Craton with syn-depositional growth along the Darling Fault.

Breakup was associated with widespread inversion, erosion, strike-slip tectonics and volcanism, which significantly modified the structural architecture of the Perth Basin. Major structural elements associated with breakup tectonism include an area of

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[1] **Freeman, M. J., And Donaldson, M. J., 2006**, Geology of the southern Perth Basin and Margaret River wine district, southwestern Western Australia — a field guide: Western Australia Geological Survey, Record 2006/20

[2] **Mory, A. J., Haig, D. W., Mcloughlin, S., And Hocking, R. M., 2005,** Geology of the northern Perth Basin, Western Australia— a field guide: Western Australia Geological Survey, Record 2005/9

[3] **Mory, A. J., And Iasky, R. P., 1996**, Stratigraphy and structure of the onshore northern Perth Basin, Western Australia: Western Australia Geological Survey, Report 46

inverted Permian half graben in the Turtle Dove Ridge (Geoscience Australia, 2008[4]).

[4] **Geoscience Australia 2008**, Regional Petroleum Geology of Australia**,** http://www.ga.gov.au/oceans/sa_perth.jsp

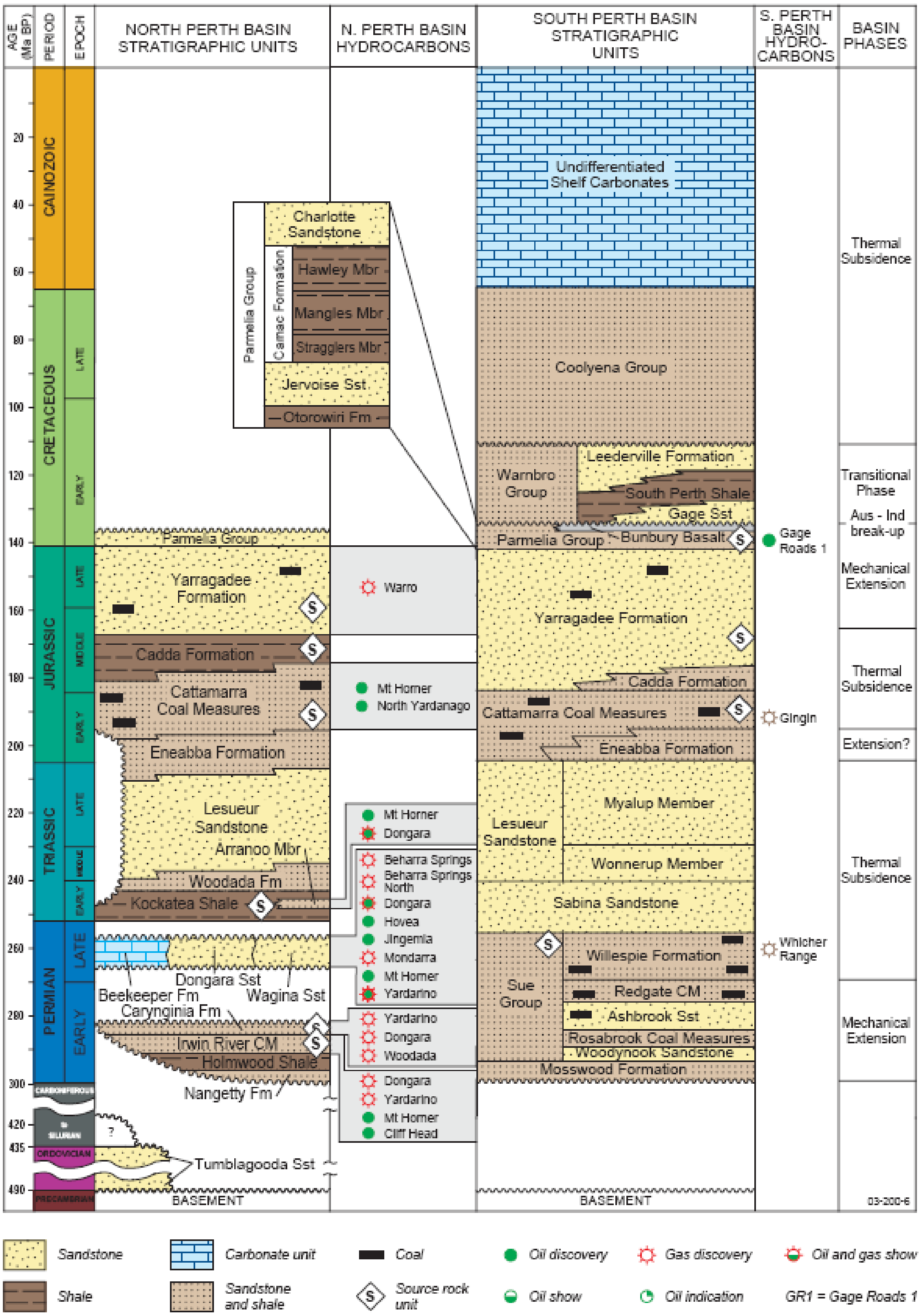

Figure 2.1 Stratigraphy of the Perth Basin (after Geoscience Australia, 2007)

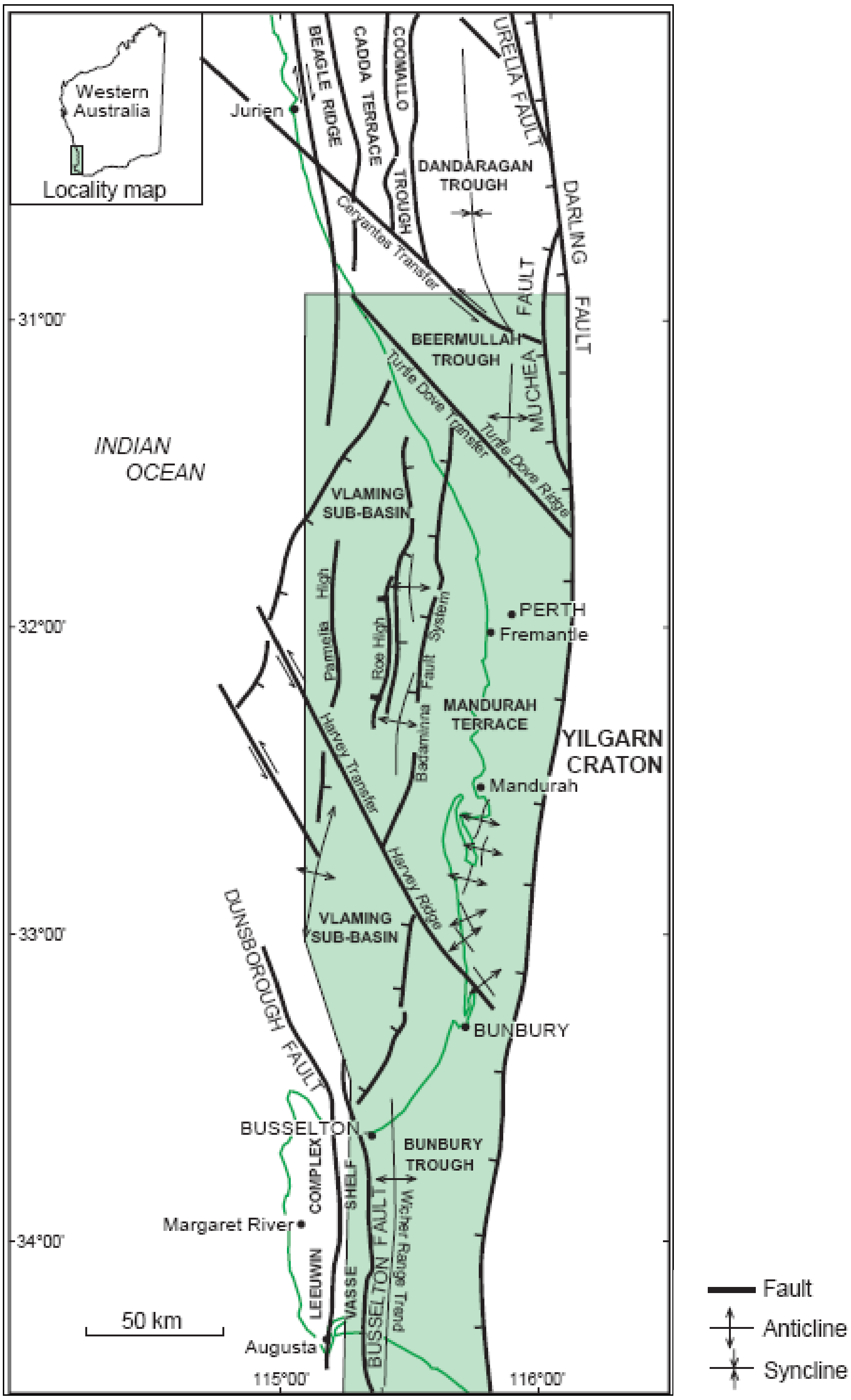

Figure 2.2 Basin subdivisions and tectonic elements of the central and southern Perth Basin (after Crostella & Backhouse, 2000[5])

[5] **Crostella, A., And Backhouse, J., 2000**, Geology and petroleum exploration of the central and southern Perth Basin, Western Australia: Western Australia Geological Survey, Report 57

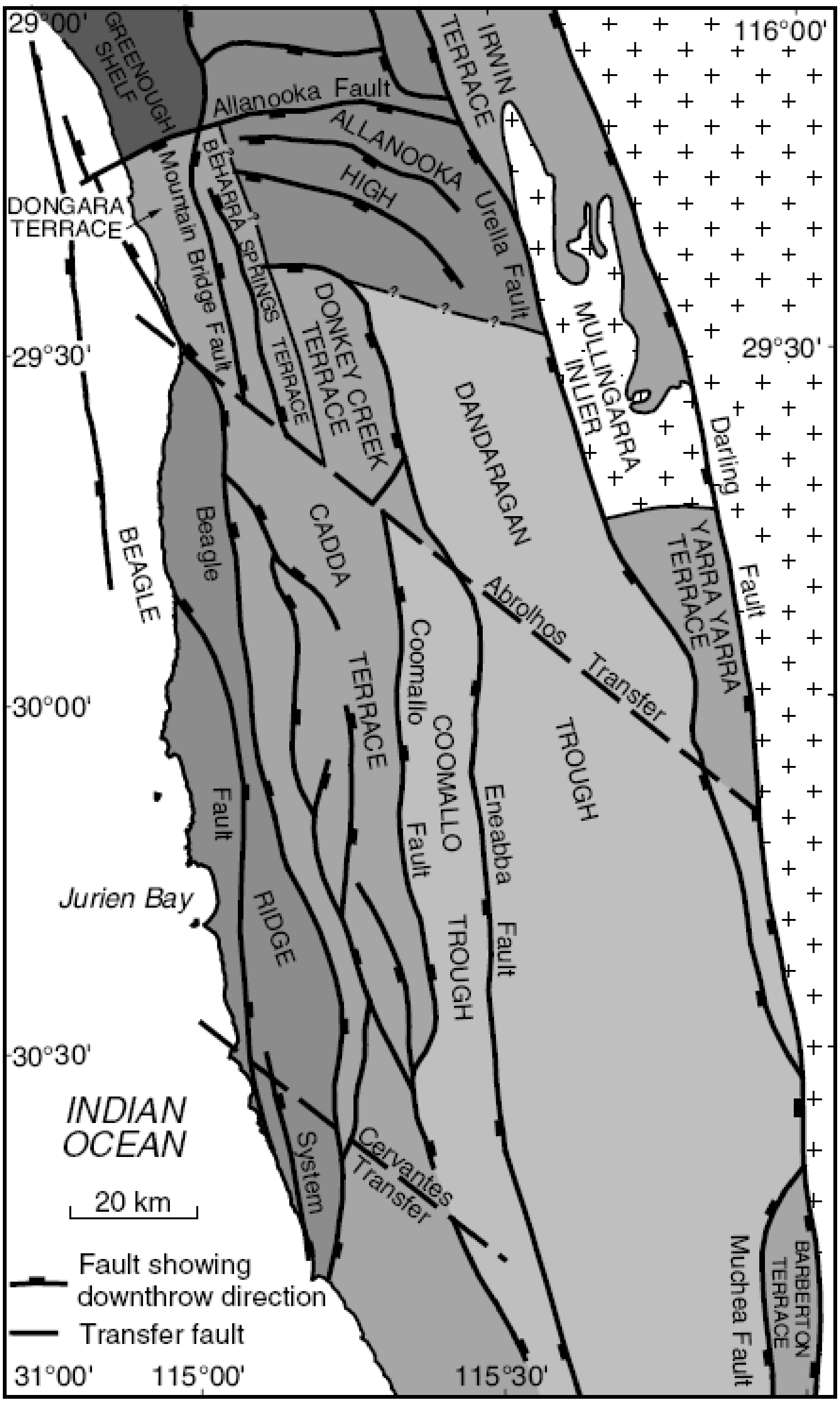

Figure 2.3 Tectonic elements of the northern Perth Basin (Mory & Iasky, 1996[3])

The main Permian sub-basin of the northern part of the Perth Basin is the Dandaragan Trough, which comprises thick sequences of Permian-Mesozoic sedimentary rocks thickening to a depth of about 15 km near the Darling Fault to the east. The major sub-basin in the Southern Perth Basin is the Bunbury Trough, a graben structure located between the Yilgarn Craton to the east and the Leeuwin Complex to the west. It is comprised of up to 10 km of Permian to Tertiary age sedimentary rocks.

3. Basement Investigations

This section addresses the Scope of Services (Section 2.2 of the RQF) and provides information for the following topics:-

For the 170 wells to be assessed (Attachment A), and the 80 previously studied wells (Attachment B):-

- determine depth of basement at the well locations
- identify basement lithology from existing geophysical data

3.1. Basement Depth

Basement depth determinations have been made at the location of all wells in the Perth Basin. Individual depths are detailed in Attachment C for the 170 wells assessed, and Attachment D for the 80 previously studied wells.

For each well, depth to basement was determined from the depth to basement for proximal wells with basement intercepts, combined with data from Oz SEEBASEv2 (FrogTech 2007) basement depth calculations, rounded to the nearest 250 m (Figure 3.1 - Figure 3.3). Actual basement intercepts in the Perth Basin were used to enhance the Oz SEEBASEv2 depth to basement calculations and refine localised basement depth estimates. Other available data were used where applicable, including the velocity analysis and depth conversions included in the 1996 Western Australian Geological Survey publication report on the Stratigraphy and Structure of the Onshore Northern Perth Basin (Mory and Iasky 1996[3]), and the depth to basement contour maps presented by Iasky (1994)[6]. All available data suggest that Palaeozoic basement reaches a maximum depth of >13 km in the Perth Basin.

3.2. Basement Lithology

The basement underlying the Perth Basin is comprised primarily of Proterozoic granulites, gneisses, metasediments and granite intrusions of the Pinjarra Orogen. Basement outcrops can be seen in fault bounded mid-basin ridges in the Northampton Complex at the northern end of the Perth Basin, and in the Leeuwin Complex on the western margin of the Bunbury Trough.

Basement lithologies were estimated for the Perth Basin based on the known basement lithology of nearby wells, and the continuation of geophysical signatures (gravity and magnetics) from areas of known basement compositions. For some wells, especially those in areas of very deep sedimentary sections (>10 km), a determination was not made due to the lack of information available to allow for a reasonable level of certainty in determining the lithologies. For all other wells in this study, however, basement lithology was estimated. Attachment C details individual lithology estimates for the 170 wells not previously studied, and Attachment D for the 80 previously studied wells.

While HDRPL has drawn on all available information, the exact nature of the basement of the Perth Basin remains poorly constrained. Gravity data are of limited use for lithology determination in much of the Perth Basin owing to the great thickness of the post-Permian succession. Lithology estimates for basement were guided by basement lithologies intersected in wells, and the assumption that a similar lithology may be expected within a 10 km radius—the approximate size of a small pluton. Wells outside these areas are denoted as having an “unknown” basement lithology, although it is probable that many of these “unknown” lithologies are pre-rift metasediments.

[6] **Iasky R.P. 1994,** Onshore northern Perth Basin gravity project. *In* Geological Survey of Western Australia, 1993-1994 Annual Review

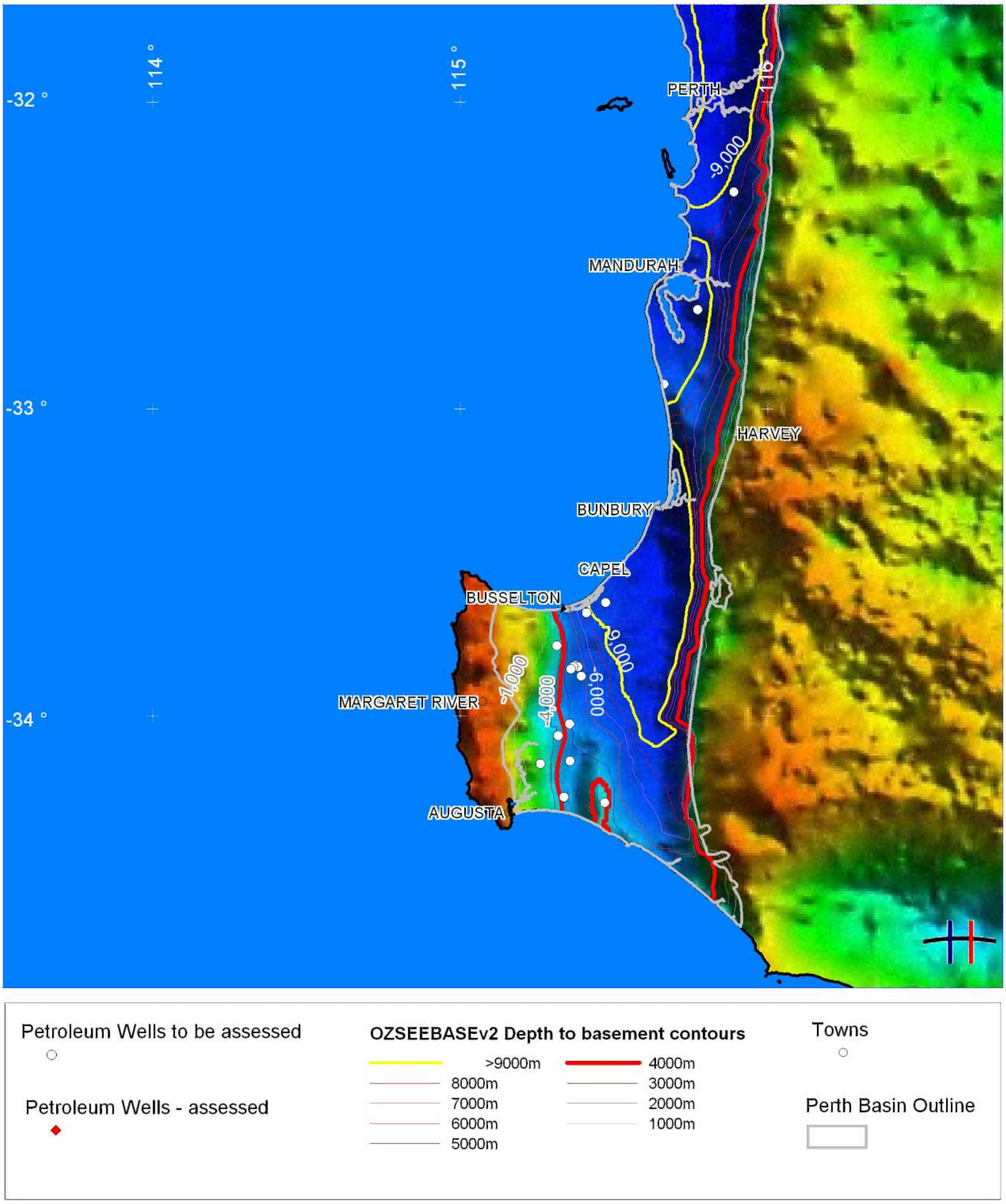

Figure 3.1 Gravity image with OZSEEBASEv2 - Depth to Basement contours for the southern area of the Perth Basin where sediment thickness is estimated to exceed 10 km.

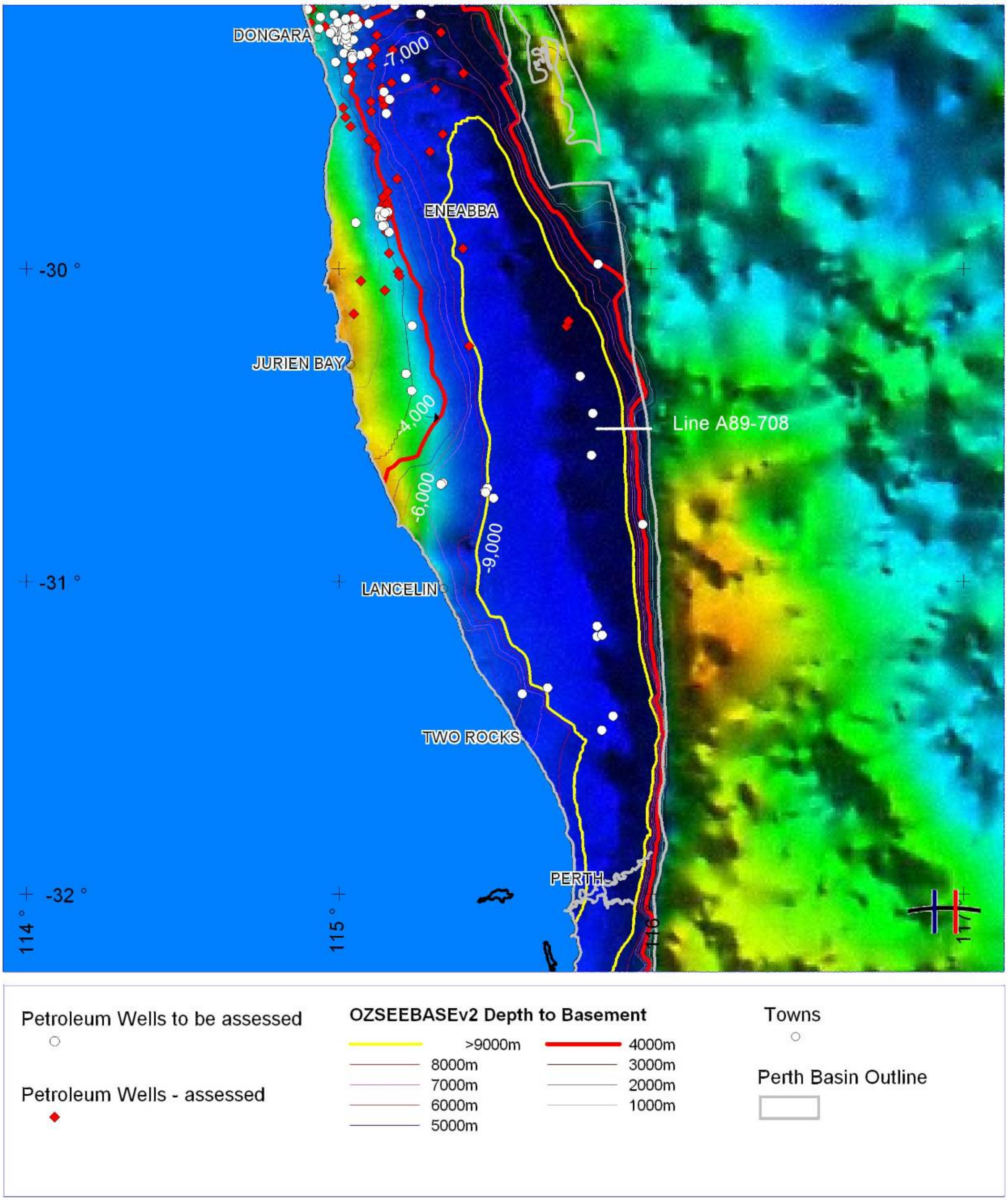

Figure 3.2 Gravity image with OZSEEBASEv2 - Depth to Basement contours for the central area of the Perth Basin where sediment thickness is estimated to exceed 13 km.

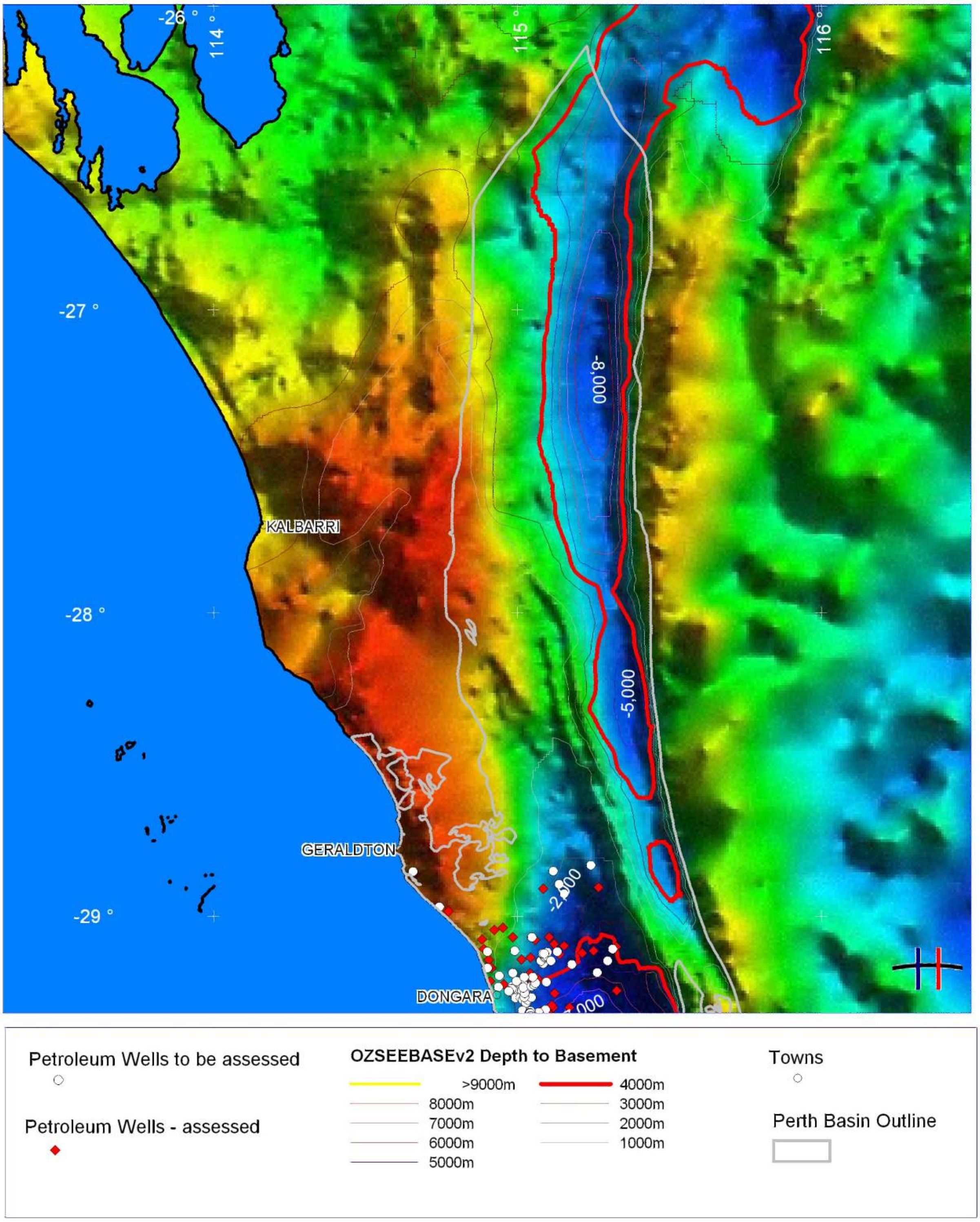

Figure 3.3 Gravity image with OZSEEBASEv2 - Depth to Basement contours for the northern area of the Perth Basin

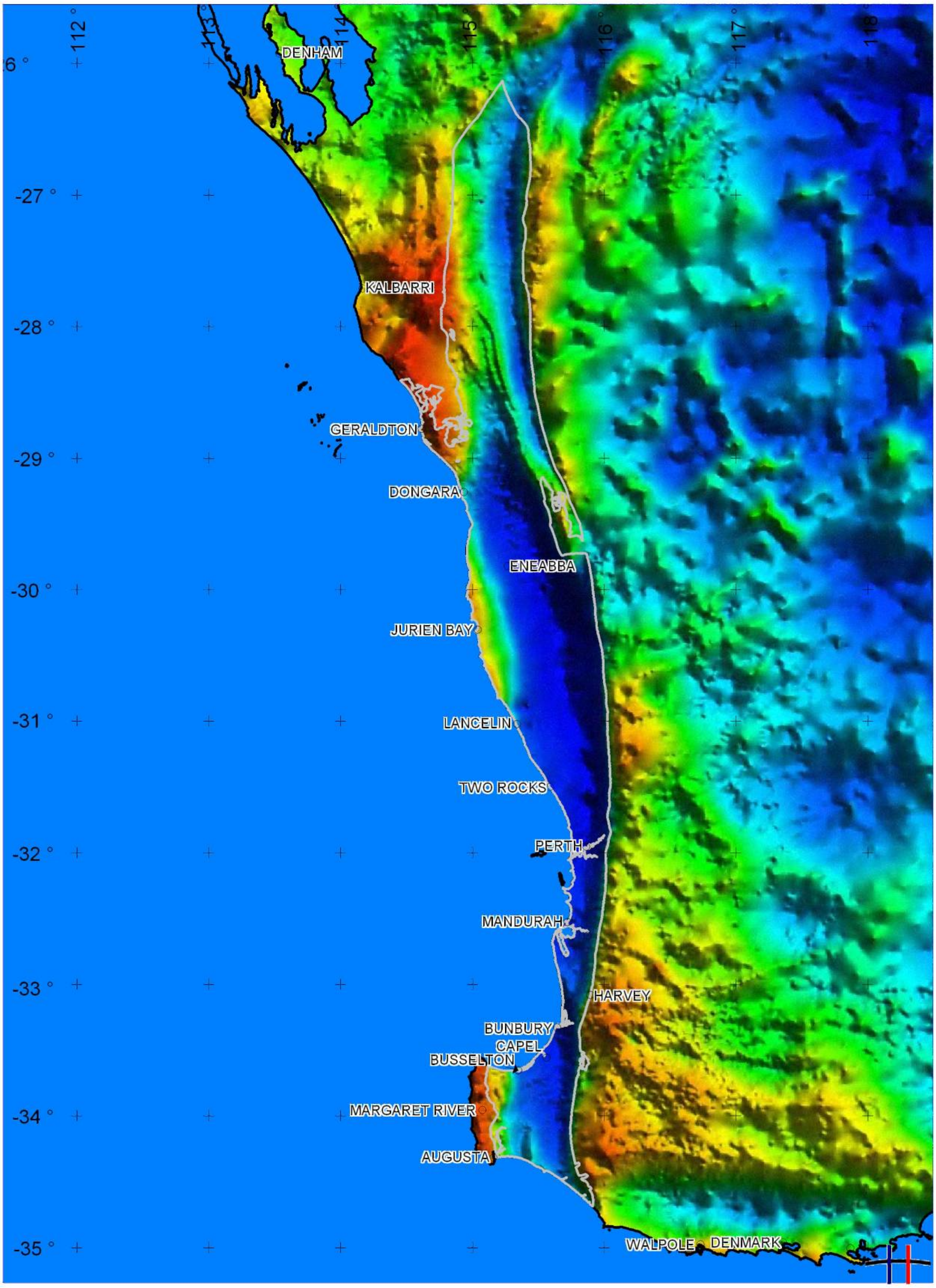

Figure 3.4 Gravity image under an outline of the onshore Perth Basin (white line)

4. Heat flow modelling methodology

4.1. Introduction

Conductive heat flow modelling allows for accurate extrapolation of temperature to depth as it honours the thermodynamic principles of heat transfer. The depth to which temperature can be extrapolated depends on the depth to which the assumption of purely conductive heat transfer holds true. The assumption fails if a) there is a component of advective heat transfer via fluid flow, b) there is appreciable internal heat generation, or c) temperatures exceed about 300°C, at which point radiation starts to play a role in heat transfer. This report assumes purely conductive heat transfer over the modelled depth intervals.

HDRPL was commissioned to model thermal conditions for 170 wells (Attachment-A) in the Perth Basin. HDRPL used its proprietary 1D Conductive Heat Flow Modelling software to build heat flow models for each of these wells. Required input data included downhole temperatures (corrected to reflect equilibrated conditions where sufficient information was available) and thermal conductivity data derived from sampling of representative formations. The primary source of data was a compilation of reported temperature and lithological data provided by the DoIR.

4.2. Heat flow and limitations of 1D modelling

Surface heat flow is a power unit measured at surface and is a function of the rate of heat generated within the crust plus heat conducted from the mantle.

The principle aim of geothermal exploration is to locate anomalously high temperatures at an economically and technically viable drilling depth. The thermal state of the crust is usually expressed at the surface in the form of heat flow units (mW/m^2) and it is generally assumed that conduction is the primary means of heat transported to the surface.

In a conductive heat regime the temperature T, at depth z is equal to the surface temperature T_0 plus the product of heat flow Q and thermal resistance R, such that:

$\mathbf{T=T_0+QR}$, where $\mathbf{R}$=$\mathbf{z}$/ (average thermal conductivity between the surface and $\mathbf{z}$).

Consequently the most highly prospective regions for geothermal exploration are those that have geological units of sufficiently low conductivity (high thermal resistance) in the cover sequence combined with high heat flow.

Heat flow is the product of temperature gradient and rock thermal conductivity. It is therefore calculated, or modelled, from these two parameters, not directly measured. The modelling of heat flow is a precision skill that requires a detailed understanding of physical conditions in the borehole and the physical properties of the rocks; including advective processes that may influence bore temperature (such as ground water flow or borehole convection), and the temperature dependence of conductivity.

Heat flows determinations are only as accurate as the data used to generate them. It is therefore important that temperature and conductivity data used to calculate heat flow represent as closely as possible the actual thermal conditions.

HDRPL's 1D Conductive Heat Flow Modelling software accounts for the temperature dependence of conductivity. However, the results of 1D heat flow modelling should be treated with caution when extrapolating data laterally over considerable distance. HDRPL recommends a subsequent, more detailed appraisal of the Perth Basin, incorporating the data derived from this study and utilising 3D conductive heat flow modelling software.

4.3. Verification of Well Temperatures

Reported well temperatures measured during the drilling process are often of unknown quality. Even reliably reported temperature data typically underestimate the true rock temperature because of the cooling effect of circulating drilling mud. In order to ensure the most accurate data are used in the thermal modelling process, statistical corrections (such as Horner Plots) can be applied to time series data recorded during the logging process.

The Horner plot method corrects for bore hole cooling created by the drilling process using the parameters of recorded bore hole temperature; the time since the last fluid circulation; and the time elapsed between the end of drilling and the cessation of fluid circulation. The accuracy of the calculation depends on the reliability and accuracy of the recorded temperatures and times. More than one recorded temperature from the same depth is required for a Horner plot.

HDRPL assessed temperatures reported in the well completion reports of 170 wells within the Perth Basin. Where sufficient information was supplied, a Horner correction was applied to the data using the methodology of Hermanrud *et al*. (1990)[7]. These corrected temperatures were used in the thermal models for these wells. HDRPL also identified a number of temperature data recorded during drill stem tests. These data often give an accurate representation of the virgin rock temperature and were also used in the assessment of the thermal state of the wells.

Temperature data used for each modelled well, and the status of those data (corrected or uncorrected), are shown within the individual heat flow models (Appendix-2).

4.4. Surface temperatures

Ground surface temperatures for each model were determined from annual mean air temperature data derived from the Australian Bureau of Meteorology for the Perth Basin. These data were corrected upwards by 3°C to account for surface rock insolation (Howard and Sass, 1964[8]). Offshore wells have been modelled using bottom water temperature (BWT) as a function of water depth and latitude (Beardsmore and Cull, 2001[9]).

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[7] **Hermanrud, C., Cao, S., and Lerche, I., 1990**. Estimates of virgin rock temperature derived from BHT measurements: Bias and error. Geophysics 55(7), 924-931

[8] **Howard, L.E. and Sass, J.H.**, 1964. Terrestrial heat flow in Australia. *Journal of Geophysical Research*, 69, 1617–1626.

[9] **Beardsmore, G.R., and Cull, J.P., 2001**. Crustal Heat Flow: A Guide to Measurement and Modelling. Cambridge University Press, Cambridge, UK, pp 324

4.5. Rock thermal conductivity measurement

Thermal conductivity is the physical property that controls the rate at which heat energy flows through a material in a given thermal gradient. In the S.I. system of units, it is measured in watts per metre-Kelvin (W/mK). In the earth, thermal conductivity controls the rate at which temperature increases with depth for a given heat flow. The thermal conductivity distribution within a section of crust must be known in order to calculate crustal heat flow from temperature gradient data, or to predict temperature distribution from a given heat flow.

Steady-state thermal conductivity measurements were undertaken by HDRPL for 36 representative samples from lithologies of the Perth Basin using HDRPL's portable divided bar thermal conductivity apparatus. The full conductivity report is provided in Appendix-1 and a summary of measurements is provided in Attachment E.

Rock thermal conductivity is highly dependent upon lithology, so some modifications to the measured data are required to ensure that conductivity data utilised in the 1D heat flow models best represent the typical lithologies found within the basin. A process of weighted thermal conductivity calculation was undertaken based on various lithology mixes as described on well logs. This process is described by Beardsmore and Cull (2001)[9] and a summary of the calculation inputs is provided in Attachments F and G.

The final rock thermal conductivity values, as used in the 1D heat flow models for the southern and northern Perth Basin, are shown in Tables 4.1 and 4.2.

Table 4.1 Summary of rock thermal conductivity values by formation for the southern Perth Basin, as used for 1D heat flow modelling in this report. "Average error" is one standard deviation uncertainty.

Southern Perth Basin		
Formation	Conductivity W/mK Harmonic mean	Average Error
Alluvium/Tertiary sediments	1.42	0.14
Coolyena Group	1.13	0.08
Warnbro Group	2.56	0.18
Leederville Formation	2.56	0.18
South Perth Shale	1.71	0.14
Gage Sandstone	1.93	0.04
Bunbury Basalt	1.80	0.30
Parmelia Group	2.58	0.33
Yarragadee Formation	3.54	0.30
Cadda Formation	4.14	0.52
Cattamarra Coal Measures	3.73	0.20
Eneabba Formation	2.62	0.44
Lesueur Sandstone	3.56	0.23
Sabina Sandstone	2.79	0.12
Willespie Formation	1.96	0.11
Redgate Coal Measures	2.87	0.09
Ashbrook Sandstone	3.98	0.24
Rosabrook Coal Measures	2.87	0.09
Woodynook Sandstone	4.15	0.28
Mosswood Formation	2.75	0.42
Basement	3.20	0.40

Table 4.2 Summary of rock thermal conductivity values by formation for the northern Perth Basin, as used for 1D heat flow modelling in this report. "Average error" is one standard deviation uncertainty.

Northern Perth Basin		
Formation	Conductivity W/mK Harmonic mean	Average Error
Alluvium/Tertiary sediments	1.42	0.14
Coolyena Group	1.13	0.08
Parmelia Group	2.58	0.33
Yarragadee Formation	3.54	0.30
Cadda Formation	4.14	0.52
Cattamarra Coal Measures	3.73	0.20
Eneabba Formation	2.62	0.44
Lesueur Sandstone	3.56	0.23
Woodada Formation	2.79	0.12
Kockatea Shale	2.09	0.06
Dongara/Wagina Sandstone	2.92	0.56
Beekeeper Formation	2.25	0.21
Caryngina Formation	1.77	0.36
Irwin River Coal Measures	3.02	0.50
High Cliff Sandstone	4.40	0.20
Holmwood Shale	1.45	0.15
Nangetty Formation	2.75	0.42
Wicherina Beds	2.75	0.42
Basement	3.20	0.40

4.6. Estimating lithologies at depth

1D heat flow models for temperature prediction at depth require detailed lithological data and the associated rock thermal conductivities of those lithologies. HDRPL utilised the DoIR formation top database, with KB datum, to constrain likely lithologies within the upper portion of the heat flow models. Other available data were used to estimate deeper lithologies.

In estimating the thickness of non-intersected units for each well, HDRPL utilised existing deep wells in the southern and northern basin (separated arbitrarily by latitude 30°00'S) to ascribe formation thickness as a ratio of entire stratigraphic column. OZ SEEBASE depth-to-basement estimates for all wells (Attachment C) were used to constrain the overall thickness of the sedimentary section, to which the unit-specific ratios were applied.

This methodology assumes that all units will be found laterally across the basin in a relatively constant ratio. Whilst simplistic, this methodology provides one of the few mechanisms to estimate the likely thickness of deep units for which there is a paucity of data. Thickness estimates were, however, crosschecked and manually adjusted well-by-well using the published compilations of seismic depth maps for key horizons (Crostella, 1995[10]; Mory and Iasky, 1996[3]) and gravity data (Le Blanc et al. 1995[11]).

In most cases the ratio thickness of units agreed well with seismic isopach maps, at least to the base Jurassic. This is to be expected owing to the post-rift thermal subsidence phase that controlled the deposition of the Jurassic to Cretaceous succession. The Cattamarra Coal Measures were much thicker than originally suggested in the test well (Cattaby-1) and this is apparent in the isopach maps. Unit thickness within the 1D heat flow models was therefore changed on a well-by-well basis to be consistent with seismic isopach maps.

Seismic line A89-708 transects (E-W) the northern part of the central Perth Basin and demonstrates the general geometry of the basin (Figure 4.1). The basin succession thickens dramatically in the hanging wall of the Urella and Darling Faults; so much so that basement cannot be resolved. The deepest horizons probably belong the near-top Triassic or the Cattamarra Coal Measures (>3 sec TWT). The Jurassic-Cretaceous succession shows little growth into the major controlling faults, suggesting uniform post-rift subsidence deposition. Other regional lines show syn-depositional growth of the Permian-Triassic succession into the Urella and Darling Faults (Mory and Iasky, 1996[3]).

Estimating the thickness of the deepest Permian units (eg. Nangetty Formation) was, therefore, difficult. The formation is thought to thin to the west and south over the Allanooka High towards the Dongara Terrace and Greenough Shelf (Mory and Iasky,

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[10] **Crostella, A., 1995**, An evaluation of the hydrocarbon potential of the onshore northern Perth Basin:Western Australia Geological Survey, Report 43, 67p

[11] **Le Blanc Smith, G., And Mory, A. J., 1995**, Geology and Permian coal resources of the Irwin Terrace, Western Australia: Western Australia Geological Survey, Report 44, 60p

1996[3]) suggesting that the formation is syn-depositional and associated with the growth of the Darling Fault. The Nangetty Formation is absent on the Beagle Ridge and at least the western portion of the Cadda Terrace. It is therefore possible that thickness variation in the Nangetty Formation may be considerable. However based on available data, it is probable that the Nangetty Formation is relatively thick and reaches a maximum thickness in the hanging wall adjacent to basin controlling faults.

In summary, whilst there is some uncertainty in the thickness and distribution of non-intersected formations within the Perth Basin, HDRPL has used all available data to make reasonable assessments on a regional scale to reduce this risk.

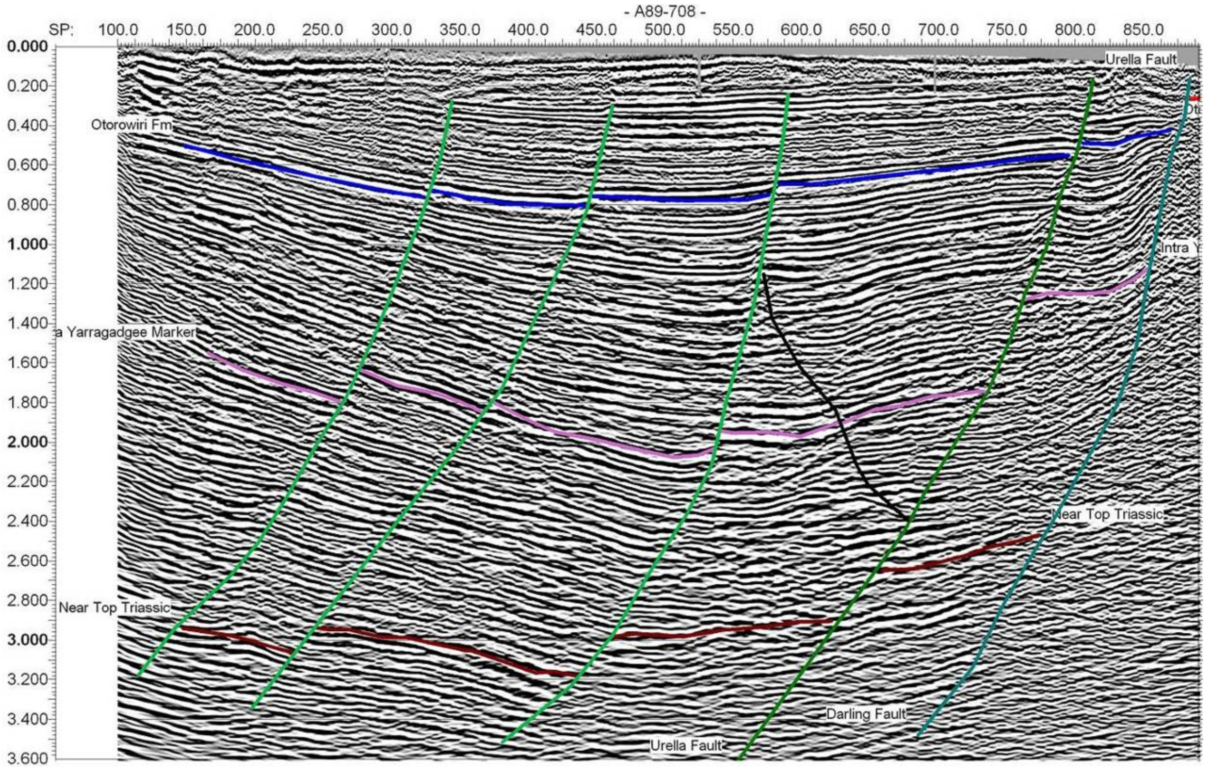

Figure 4.1 HDRPL seismic interpretation of line A89-708. Vertical scale is in two-way-time. Basement and the Permian sections are beyond the seismic penetration west of the Urella Fault. Line location is shown on Figure 3.2.

4.7. Estimating basement heat generation

HDRPL was requested to comment on the heat generating capacity of basement for all 250 wells (including previously studied). Heat generation can only be accurately determined from the analytical measurement of Uranium, Thorium and Potassium within rock samples. As it is neither feasible or possible to obtain basement samples for all 250 wells for analytical measurement, HDRPL has assessed the heat generation of rocks within and adjacent to the Perth Basin using available data from the Geoscience Australia (GA) geochemical data base (Ozchem). Heat generation calculated from these samples has been incorporated into the 1D heat flow models for this study.

Limited geochemical data are available for the Perth Basin (4 samples). Additional samples from the Northampton Complex and western portion of the Yilgarn Craton have been included, assuming that similar rocks may partly comprise the basement of the Perth Basin. Heat generation (µW/m^3) for each sample was calculated using an assumed rock density and the isotopic abundance method as described in Beardsmore and Cull (2001)[9]. Individual results for granites, gneiss and sedimentary rocks are listed in Attachments H, I and J, respectively.

A summary of heat generation results for granite, gneiss and sedimentary rock samples in and adjacent to the Perth Basin is shown in Table 4.3. The data suggest that, whilst there are some high values, on the whole the uranium content of granites, gneiss and sedimentary rocks in and around the Perth Basin is not greatly elevated. The resulting heat generation values for granite are largely consistent with, or slightly above, global average (Beardsmore and Cull, 2001[9]) but are below those described for the Cooper Basin of South Australia (~10 mW/m^3, McLaren *et al*., 2003[12]).

This assessment may change with further geochemical sampling of basement rocks in the Perth Basin, and HDRPL recommends that the DoIR further investigate the heat generation potential of rocks.

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[12] **McLaren S, Sandiford M, Hand M, Neumann N, Wyborn L and Bastrakova I** (2003). The hot southern continent: heat flow and heat production in Australian Proterozoic terranes. Geological Society of Australia Special Publication 22, pp 151-161.

Table 4.3 Summary of rock heat generation values calculated for selected rock types in and adjacent to the Perth Basin.

Lithology	**No. samples**	**Assumed density (g/cm^3)**	**Heat generation ($\mu W/m^3$) Range**	**Median**
Granite	35	2.68	0.54–20.5	**4.08**
Gneiss	21	2.65	0.31–10.3	**1.97**
Sedimentary	8	2.50	0.68–3.30	**1.38**

5. Heat flow modelling results

5.1. Calculated heat flow

Conductive heat flow modelling was attempted for all 170 wells in the study. However, eight of the wells either had insufficient temperature data or classified well information, which prevented the accurate modelling of heat flow. The outcomes of 1D heat flow models of 162 wells are shown in Appendix-2. A summary of heat flow results, and the relative reliability ranking of the data, is shown in Attachment K.

Apparent conductive heat flow for the basin ranges from 30 to 140 mW/m^2 with a median value of 90 mW/m^2. However, the distribution of these data is biased towards areas of high apparent heat flow (eg. the Dongara and Mt. Horner fields). This is illustrated in the frequency histogram of data (Figure 5.1).

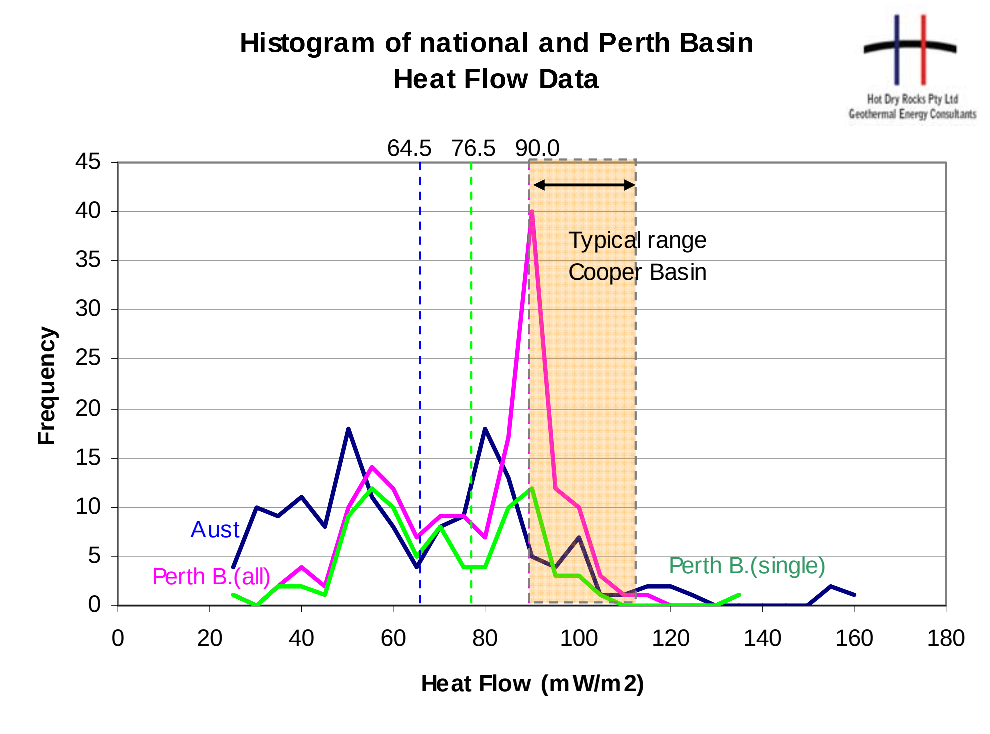

Figure 5.1 Distribution of apparent surface heat flow for 162 wells in the Perth Basin (pink line). Median value is 90 mW/m^2. Distribution of apparent surface heat flow for single wells/fields in the Perth Basin (green line). Median value is 76.5 mW/m^2. Distribution of Australian heat flow data in the global heat flow database (blue line). Median value is 64.5 mW/m^2. The typical range of Cooper Basin heat flow also shown for reference.

When the heat flow values for multiple wells (in the same field) in the Perth Basin are expressed as a single median value and compared to other fields, the overall basin median declines to 76.5 mW/m^2. This value is about 18.6% higher than the Australian median value.

5.2. Reliability of heat flow data

The major source of uncertainly in heat flow calculations is thermal conductivity. HDRPL has necessarily made certain assumptions about conductivity in this broad review of heat flow. The calculated heat flow values are valid so long as these assumptions hold true:

- The conductivity of individual formations can be characterised by a single value and uncertainty margin.
- Core specimens housed in the DoIR core library are representative of the formations from which they were derived.
- Lithologies of unsampled formations are relatively typical, with conductivities similar to those measured globally on similar lithologies

HDRPL considers the major uncertainties to lie in the conductivity estimates for coal-bearing units. Coal is an excellent thermal insulator and even small concentrations can significantly reduce the bulk conductivity of a formation. For this study, HDRPL chose to assign measured values for the conductivity of coal measures, based on samples obtained from the DoIR core library. The assumption of a single characteristic conductivity value is unlikely to hold for the coal measures. The heat flow values for wells containing significant proportions of coal measures are, therefore, of lower reliability than other wells. HDRPL recommends a detailed examination of evidence for coal distribution and thickness, and the thermal conductivity implications of these parameters.

Modelled outcomes also depend upon the quality and quantity of temperature data. Where temperature data were Horner corrected, temperature errors were estimated as ±3°C. Uncorrected temperature data are almost certain to understate the true formation temperature (Beardsmore and Cull, 2001[9]), hence modelling with these data requires a positive error margin. Where uncorrected BHTs were used, a maximum positive error margin was derived by comparing corrected and uncorrected temperature values in wells with Horner corrected values. Such wells were modelled for heat flow using the mid-point between the temperature value and the positive error bar.

The influence of low-reliability data tends to bias heat flow towards the lower end of the distribution. This is illustrated in the distribution of heat flow results for individual wells in the Dongara Field (Figure 5.2). Modelled heat flow values were ascribed a relative reliability ranking based on a qualitative assessment of the well temperature, depth and lithology data (Attachment K). The relative reliability of data is illustrated spatially in Figure 5.3 with increasing point size denoting increasing relative reliability.

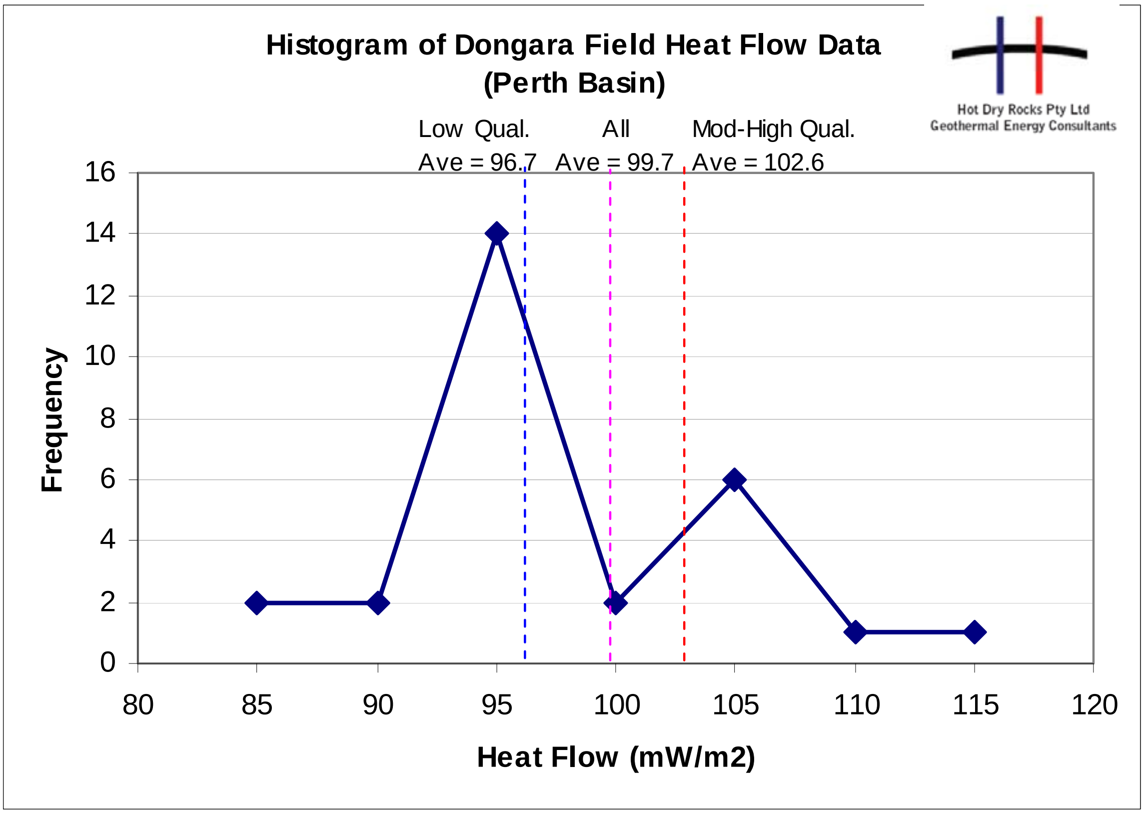

Figure 5.2 Distribution of modelled surface heat flow for 28 wells in Dongara Field showing the influence of lower quality (uncorrected) temperature data on modelled heat flow. Wells with “low” quality temperature data have an average modelled heat flow of 96.7 mW/m^2, whilst those with “moderate-high” quality data have an average modelled heat flow of 102.6 mW/m^2.

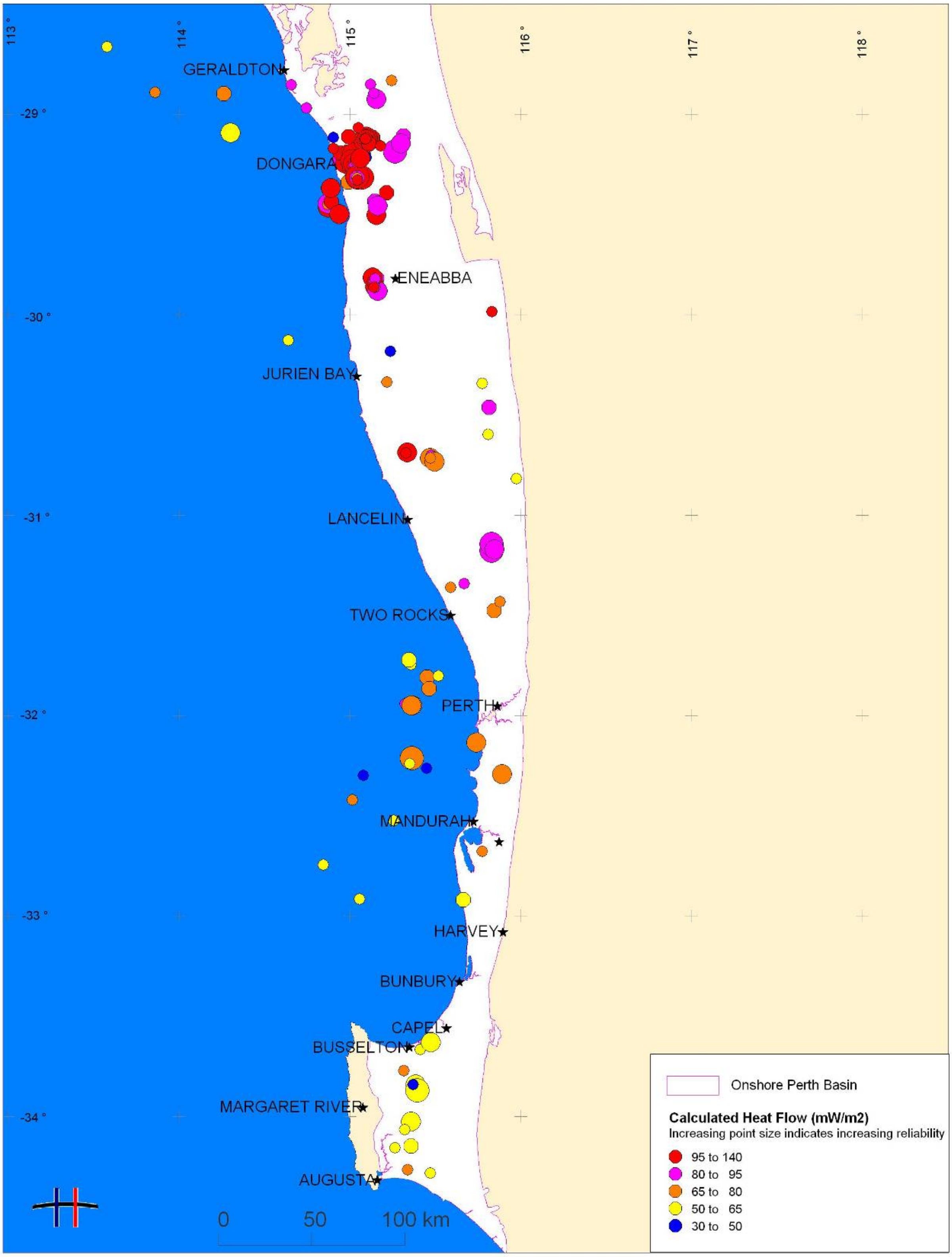

Figure 5.3 Modelled surface heat flow for 162 wells in the Perth Basin. Relative reliability of temperature data is represented by point size.

The Dongara Field has 28 wells that returned heat flow values in the range of 85–116 mW/m^2, with a median modelled heat flow of 98.5 mW/m^2. However, at least ten of these wells have a relative reliability ranking of "low" for heat flow, largely due to uncorrected temperatures. The impact of relative reliability on heat flow is illustrated in Figure 5.2 for the Dongara Field, where "low" quality heat flow values average of 96.7 mW/m^2 and "moderate-high" quality heat flow values have an average of 102.6 mW/m^2.

Of the 162 wells modelled in this study, 44% were ranked as having a "low" relative reliability based on temperature data. These well models may be biased towards understating the true thermal regime, largely as a function of poor quality temperature data.

5.3. Spatial distribution of heat flow data

The spatial distribution of modelled surface heat flow is illustrated in Figures 5.3 to 5.5. In general, modelled surface heat flow increasing towards the north of the Perth Basin, while the lowest modelled heat flow values (<65 mW/m^2) are centred around the Bunbury Trough. Areas of lower apparent heat flow also occur north of Perth, possibly related to increased sediment thickness in the Dandardagan and Beermullah Troughs.

Modelled heat flow reaches >80 mW/m^2 in a small area to the south of Perth and also in the coastal area between Lancelin and Jurien Bay (Figure 5.4). The highest modelled heat flows in the basin (>85-90 mW/m^2) occur north of Eneabba and in the Dongara area. This marked change north of latitude 30°00' is illustrated in the bivariate plot of heat flow against latitude (Figure 5.5). This trend shows a gradual increase in apparent heat flow towards the north of the Perth Basin, reaching average values >80 mW/m^2 north of latitude 30°00'. Both the conditional expectation and quantile-quantile curves are measures of variation and suggest a uniform trend of increasing heat flow towards the north with a marked change at latitude 30°00'. The non-linear quantile-quantile trend north of latitude 30°00' suggests a possible change in heat source and may be highlighting the influence of underlying granites of the Northampton Complex in the northern Perth Basin.

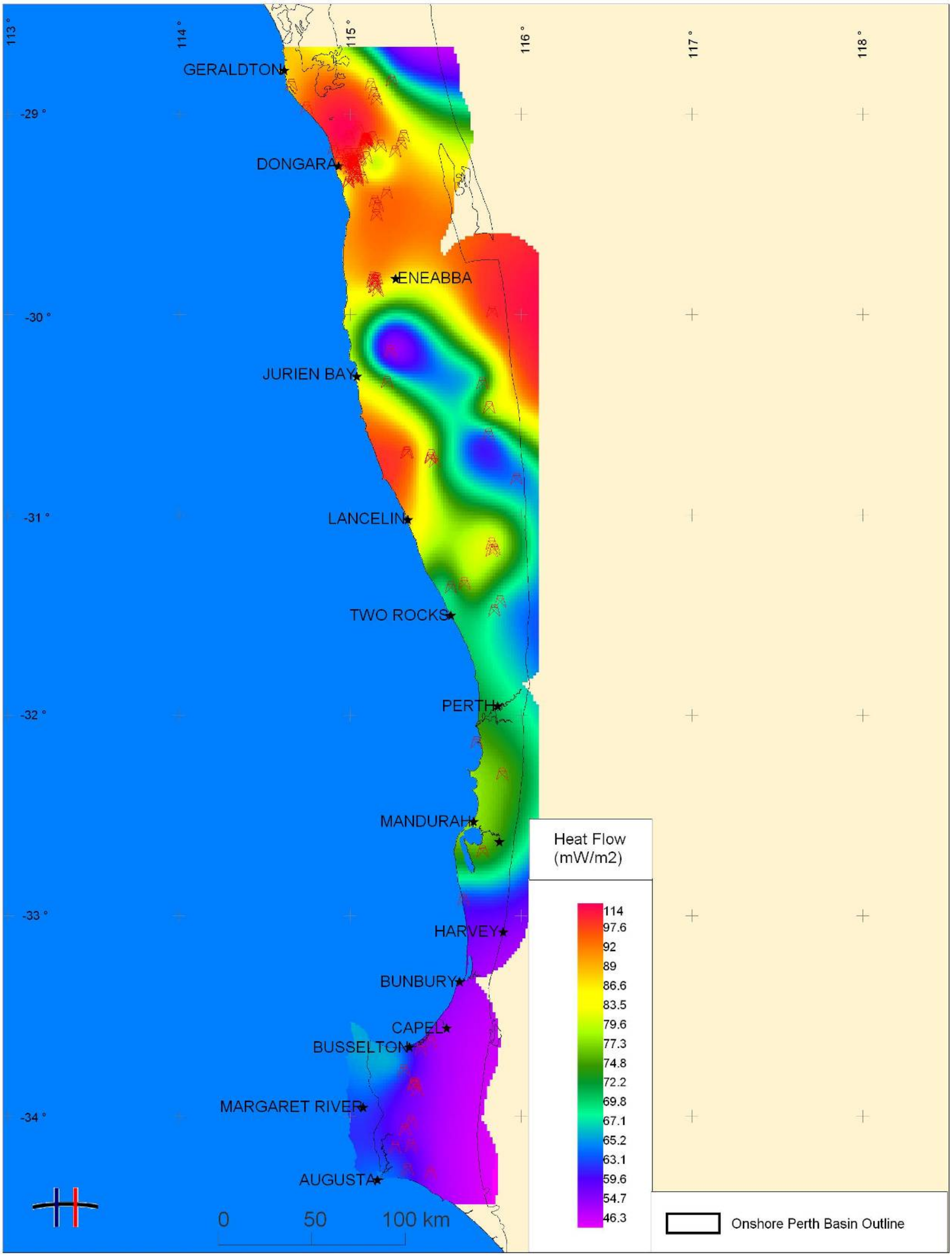

Figure 5.4 Gridded modelled heat flow for the onshore component of the Perth Basin.

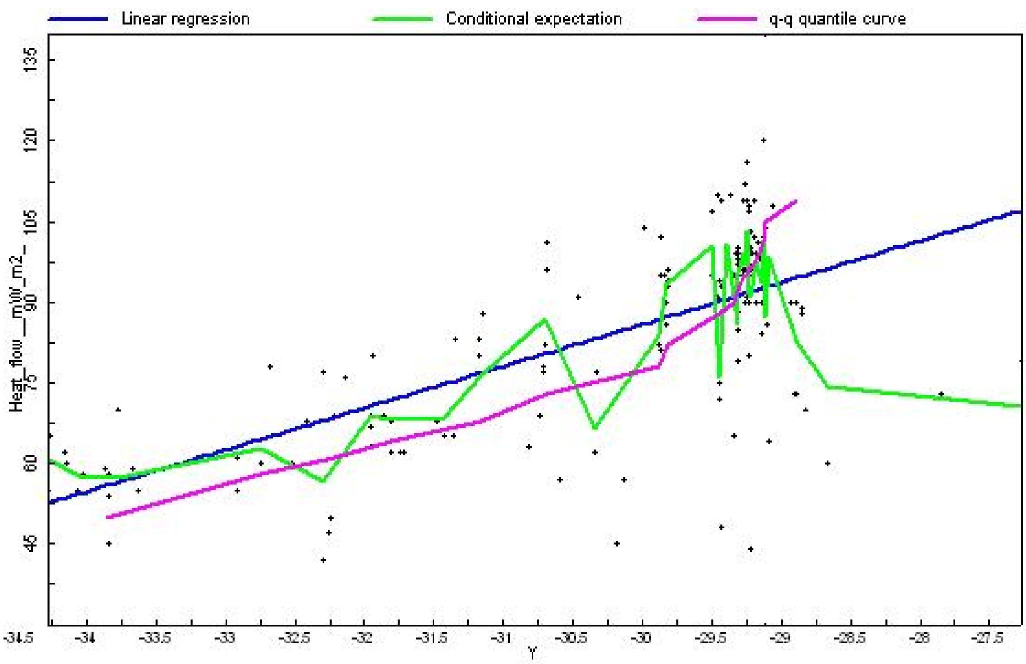

Figure 5.5 A bivariate plot of all the modelled heat flow values (y axis) of the Perth Basin vs latitude (x axis), showing the trend of increasing apparent heat flow to the north.

6. Temperature projection

6.1. Introduction

Conductive heat flow modelling (Appendix-2) allows the estimation of depth to isotherm targets. The theory and limitations of the technique were discussed in Section 4.2. HDRPL was commissioned to estimate depths to the 100°C, 150°C and 200°C isotherm, and a compilation these estimates for each well is shown in Attachment M. The estimated formation that may be intersected at the isotherm depth, as determined in the process described in Section 4.7, is also shown in Attachment L.

Gridding of the inferred 100°C, 150°C and 200°C isotherms is shown in Figures 6.1 to 6.3. A number of areas immediately north and south of Perth have the 150°C isotherm modelled at <5 km depth (Figure 6.2) and may be areas of increased Engineered Geothermal System (EGS) prospectivity, depending on the suitability of target lithologies for fracture stimulation. The area north of Lancelin-Jurien Bay has the 150°C isotherm modelled at <4000 m in parts and the inferred depth to this isotherm becomes increasingly shallower (<3000 m) towards Eneabba and Dongara. In some of these northern areas the inferred 150°C isotherm is coincident with Permian-Jurassic sedimentary units. Where a suitable lithology that preserves natural permeability is present in this area, the potential for Deeply Buried Sedimentary Aquifer (DBSA) geothermal systems might be investigated.

6.2. Extrapolation of Temperatures to Basement

HDRPL was commissioned to estimate the temperature at basement from 1D heat flow modelling. As the Perth Basin is exceptionally deep (sediment exceeding 13 km thickness), HDRPL could see little value in estimating temperatures beyond an economic limit. Following consultation with the DoIR, it was agreed that a more logical approach would be to set an arbitrary economic basement level at 5 km and determine temperatures at this depth.

Figure 6.4 shows the modelled temperatures at 5 km depth for the Perth Basin, and tabulated results for each well are listed in Attachment L. In general, the economic basement is projected to be cooler in the south, where modelled temperatures are <130°C for much of the Bunbury Trough. Modelled temperatures are higher near Perth (>160°C) and reach their maximum levels (>200°C) north of Eneabba.

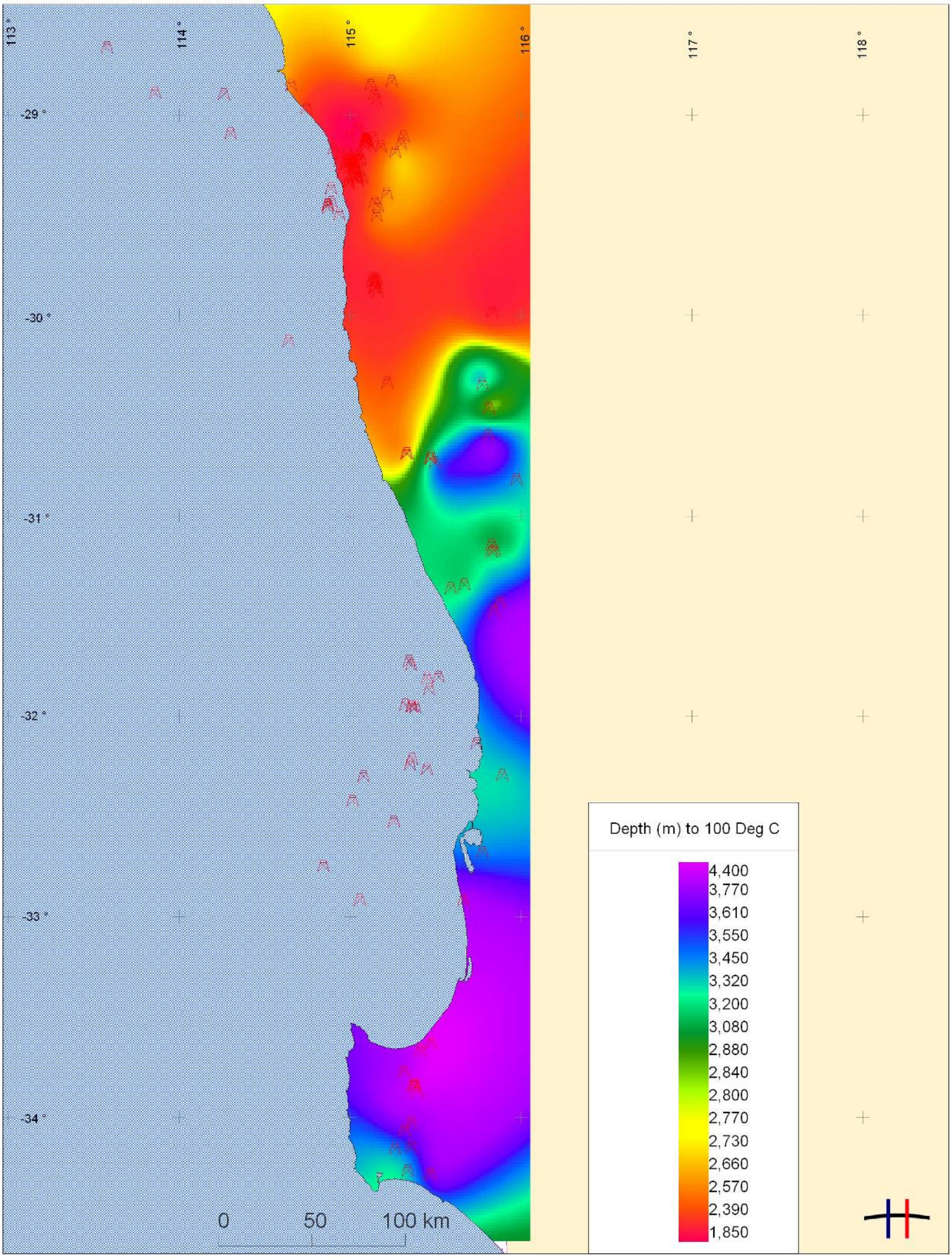

Figure 6.1 Inferred and gridded 100°C isotherm map for the onshore Perth Basin

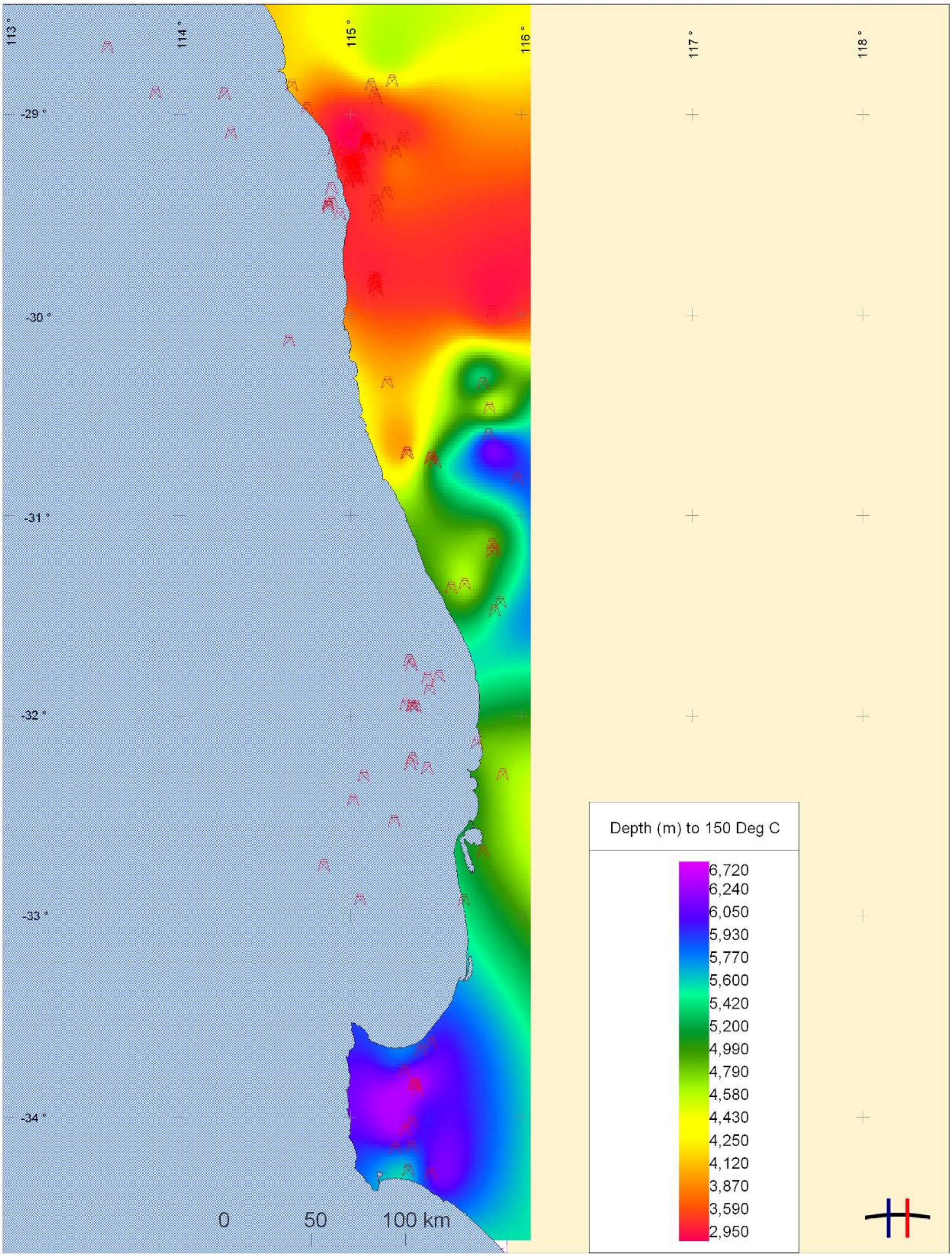

Figure 6.2 Inferred and gridded 150°C isotherm map for the onshore Perth Basin

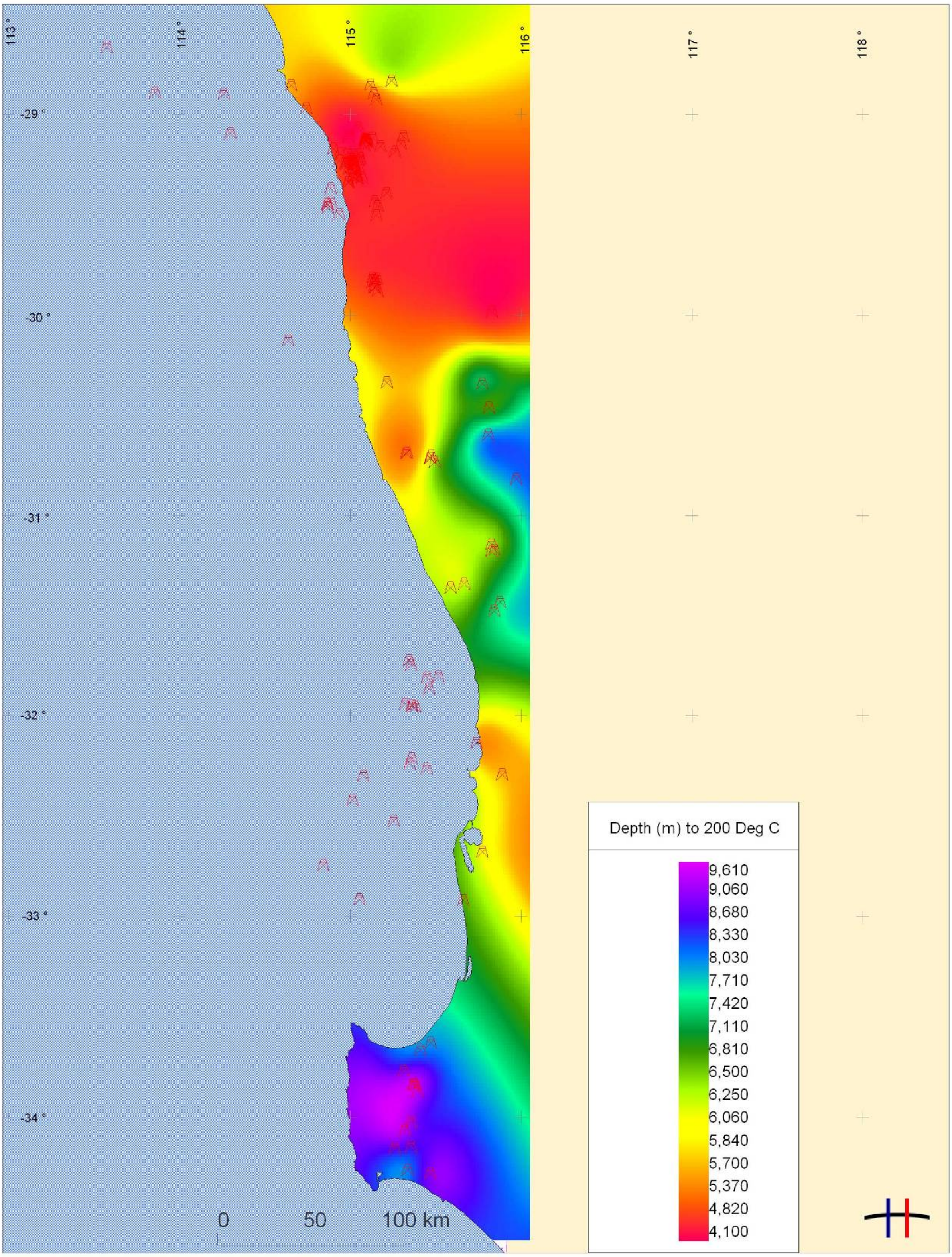

Figure 6.3 Inferred and gridded 200°C isotherm map for the onshore Perth Basin

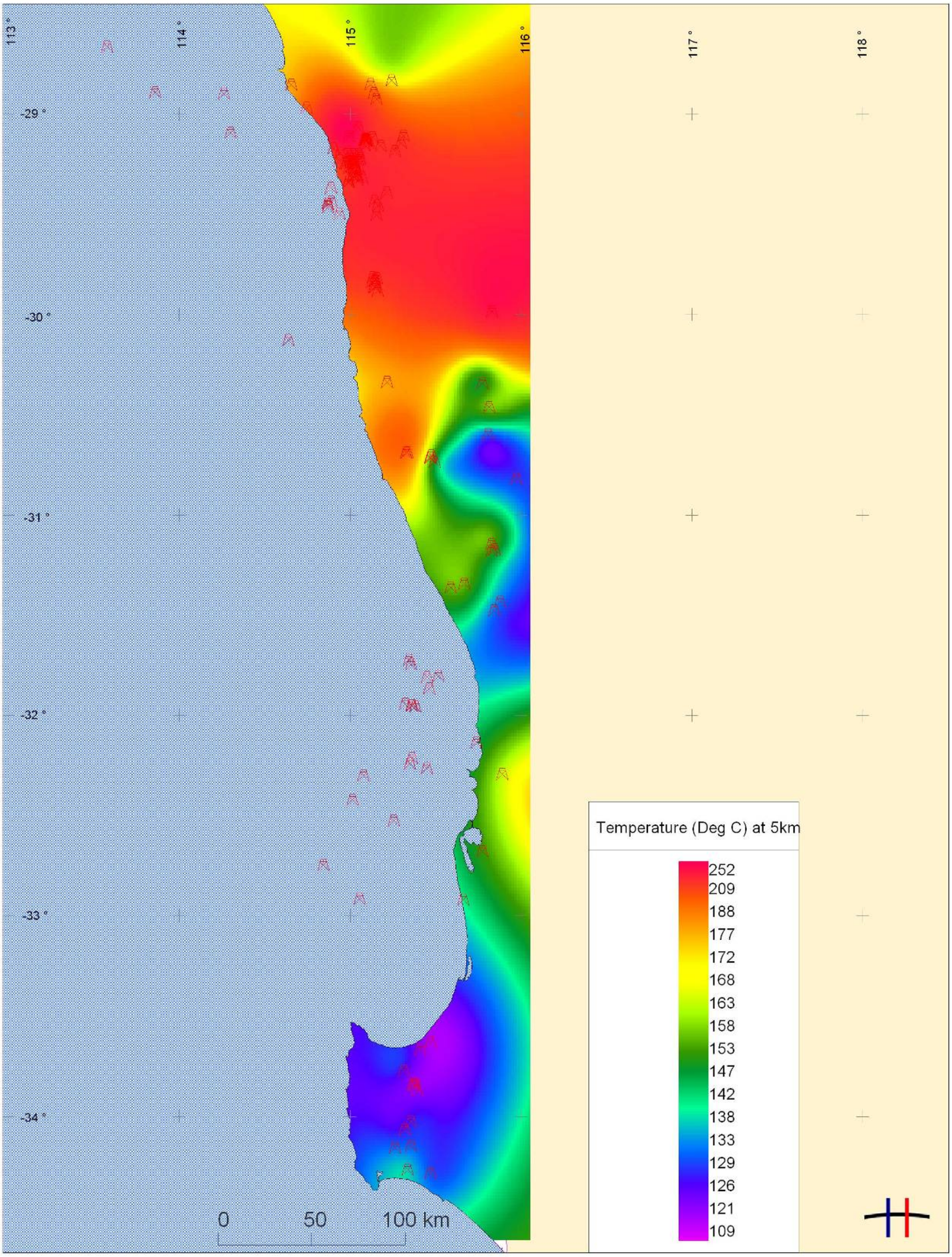

Figure 6.4 Inferred and gridded temperature at economic basement (5 km) for the onshore Perth Basin

7. Stress field in the Perth Basin

7.1. Adequacy of currently available data

The potential to develop a reservoir for an Engineered Geothermal System (EGS) is largely influenced by regional (tectonic) stresses. Early compilations of regional stress data for the Perth Basin, as part of the Australasian Stress Map (http://www.asprg.adelaide.edu.au/asm/perth_region.html), mainly comprise bore hole breakout and over-coring measurements. These data suggest that the Perth Basin is largely in a compressive stress regime where thrust faulting dominates. Subsequent data collected from FMI logs within the Perth Basin suggest that the basin in largely subject to a strike-slip regime with the mean direction of the principle stress axis (S_{hmax}) broadly oriented E-W, or a mean azimuth of approximately 090° (Figure 7.1, van Ruth, 2006[13]).

More recent data from the northern Perth Basin indicate a possible transitional state from thrust to strike-slip (King *et al*., 2008[14]). Regardless of the exact state of stress, most data suggest the principle stress trajectory is in the horizontal plane, with the regime probably bordering strike-slip and thrust. In broad terms, stress regimes where the principle stress trajectory is horizontal are beneficial for EGS development as this can facilitate the development of sub-horizontal reservoirs. Local variations in stress state, however, need to be considered at a prospect scale and new stress data should be acquired prior to geothermal drilling activities.

7.2. Stress magnitudes in the Perth Basin

Stress is a vector usually described by three axial components. This means that, apart from the direction of the principal horizontal stress trajectory (S_{hmax}), EGS development also requires consideration of the direction of the other two principal stress trajectories (S_{hmin} and S_v) and the magnitudes of all stress components.

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[13] **Van Ruth, P, 2007.** Geomechanics: Vlaming Sub-Basin, Western Australia. (Appendix 9 of report no. RPT06-0162). Cooperative Research Centre for Greenhouse Gas Technologies, Canberra, Australia, *CO2CRC Publication Number RPT06-0043.*

[14] **King RC, Hillis RR and Reynolds SC, 2008**. In situ stresses and natural fractures in the Northern Perth Basin, Australia. *Australian Journal of Earth Sciences*, 55, 685 – 701.

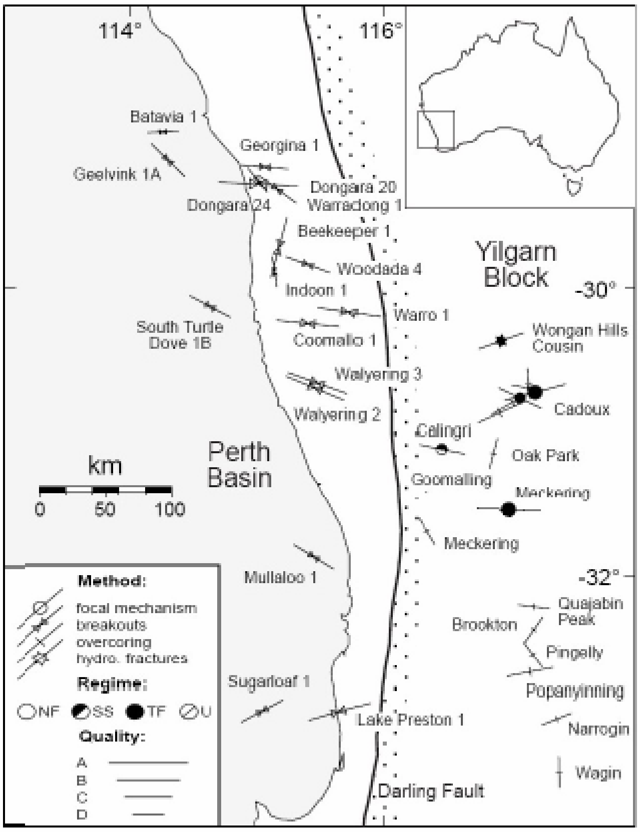

Figure 7.1 The orientations of the principle horizontal stress direction (S_{hmax}) as measured wells within and adjacent to the Perth Basin. The mean orientation is E-W. Regime indicators and methods are also shown, where known (from Reynolds and Hillis, 2000[15]).

In-situ stress measurements for the Perth Basin compiled by van Ruth (2006)[13] generally suggest that stress gradients are:-

- S_{hmax} ~ 26.1 MPa/km
- S_v ~21.0 MPa/km
- S_{hmin} ~ 15.3 MPa/km

Pore pressure was determined to have a regional gradient of ~10.2 MPa/km, which is slightly higher than average.

[15] **Reynolds, S.D., and R.R. Hillis, 2000** The in situ stress field of the Perth Basin, Australia, Geophysical Research Letters, 27, 3421-3424.

King *et al*. (2008)[14] reported similar stress gradients from well data in the northern Perth Basin, except that S_{hmin} magnitudes are elevated and almost equal to S_v, suggesting a transitional stress state between strike-slip and reverse. These regional data may suggest that greater pressures will be required for stimulation activities in the northern Perth Basin owing to higher confining stresses.

7.3. Data quality and adequacy

Compiled *in-situ* stress data for Perth Basin wells is shown in Tables 7.1 and 7.2. Data derived from 4-arm calliper measurements (Reynolds and Hillis, 2000)[15] are typically regarded as lower quality and this is reflected in the higher proportion of C and B rankings using the World Stress Map Project quality ranking scheme (www.world-stress-map.org).

Table 7.1 Maximum horizontal stress direction in the Perth Basin from 4-arm calliper logs (Reynolds and Hillis, 2000)[15] as ranked according to the World Stress Map Project quality ranking scheme (www.world-stress-map.org).

Well	Mean Shmax direction (N)	Std Dev	Count	Quality
Batavia 1	88	NA	1	D
Beekeeper 1	15	8	4	B
Coomallo 1	98	1	3	A
Dongara 20	93	9	13	B
Dongara 24	138	9	13	A
Geelvink 1A	135	5	3	C
Georgina 1	95	11	4	C
Indoon 1	161	8	2	D
Lake Preston	80	17	17	B
Mullalooo 1	122	23	7	C
South Turtle Dove 1B	118	21	3	C
Sugarloaf 1	61	8	5	C
Walyering 2	113	2	8	B
Walyering 3	106	16	28	B
Warradong 1	131	6	4	C
Warro 1	105	15	7	B
Woodada 4	110	17	3	B

Table 7.2 Maximum horizontal stress direction in the Perth Basin from FMI logs (van Ruth, 2006)[13] as ranked according to the World Stress Map Project quality-ranking scheme (www.world-stress-map.org).

Well	Mean Shmax direction (N)	Type	Std Dev	Count	Quality
Apium 1	90	BO	6	20	A
Apium 1	80	DTF	4	20	A
Beharra Springs North 1	78	BO	10	20	A
Beharra Springs North 1	87	DTF	8	59	A
Beharra Springs South 1	80	BO	11	23	A
Beharra Springs South 1	80	DTF	13	67	B
Cliffhead 4	96	BO	9	28	A
Cliffhead 4	104	DTF	11	18	A
Kingia 1	94	BO	15	75	B
Kingia 1	88	DTF	9	86	A
Mentelle 1	110	BO	0	1	E
Mentelle 1	104	DTF	11	215	A
Redback 1	75	BO	8	101	A
Redback 1	76	DTF	7	107	A
Twin Lions 1	90	DTF	8	27	A
Twin Lions 1	97	BO	0	1	D

BO = Bore hole breakouts. DTF = Drilling induced tensile fractures.

Formation resistivity image logs (FMI) provide more accurate measures of *in-situ* stress from both borehole breakouts and drilling-induced tensile fracture (van Ruth, 2006[13]). Their data are of a comparatively high quality.

Compared to other Australian basins described in the Australasian Stress Map (http://www.asprg.adelaide.edu.au/asm/perth_region.html), the Perth Basin has a reasonable spread of contemporary stress data of high quality (particularly those derived from FMI logs).

However most of the wells for which data are presently available are geographically located in either the northern Perth Basin or offshore (Vlaming Sub-basin). There are few data available for the central of southern Perth Basin (Figure 7.1). Future *in-situ* stress measurement work in the Perth Basin for geothermal purposes may seek to acquire data from these areas.

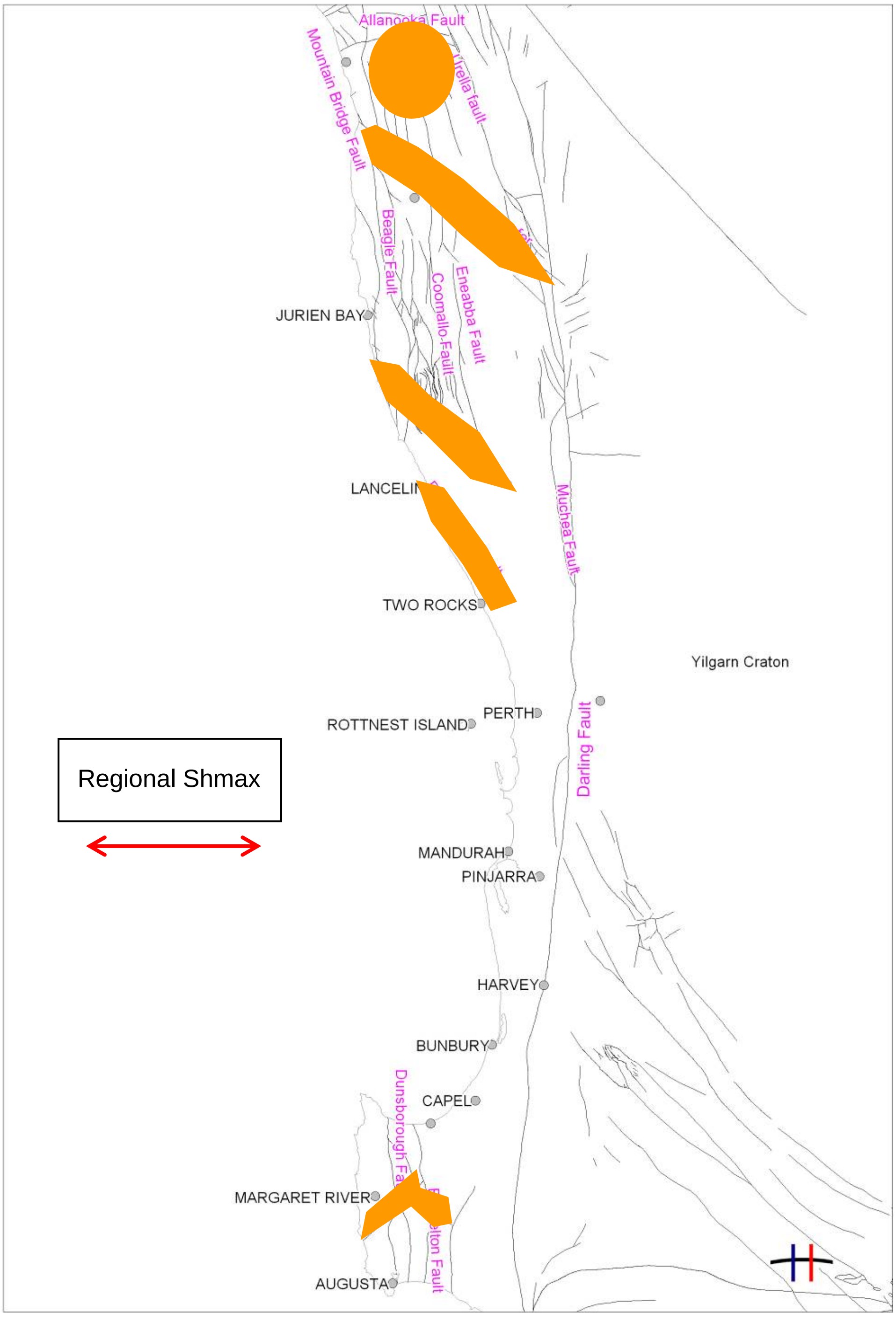

Figure 7.2 Major faults in the Perth Basin. Faults oriented at a low angle to regional Shmax (shaded orange areas) may be susceptible to shear reactivation along part of their strike.

7.4. Relevance of regional stress to geothermal exploration

In the absence of detailed 3D stress modelling, it is not possible to make definitive statements about the possible impact of the stress regime in the Perth Basin on geothermal prospectivity. It is however possible to make some generalised observations that may be useful in directing further stress studies for geothermal purposes.

Fault reactivation risk (‘FAST’) modelling of offshore faults (Vlaming Basin) was undertaken by van Ruth (2006)[13]. This study concluded that the risk of reactivation was enhanced for those faults that are oriented WSW-ENE and have a steep dip. N-S oriented faults had a low risk of reactivation. These observations conform to the general notion that, given suitable pressures and rock strength, faults that are oriented at a low angle (~30°) to S_{hmax} may experience shear reactivation. This observation may hold true for the onshore Perth Basin, given similar geology and structure.

King *et al*. (2008)[14] also noted that fracture patterns in the northern Perth Basin are oriented sub-parallel to the trace of major faults. Consequently it may be expected that faults and their associated fracture networks in the onshore Perth Basin which are broadly oriented NW-SE or NE-SW have the greatest potential for shear reactivation and may define areas of enhanced permeability. Based on regional data, very few faults in the onshore Perth Basin appear to have this orientation. The most notable exceptions are the Abrolhos, Cervantes and Turtle Dove Transfer zones (Figure 7.2).

Fault planes can have complex kinematics, however, and most will not be reactivated along their entire length. The Vlaming Basin stress study also demonstrated that modelled fault planes have variable reactivation risks along their strike (van Ruth, 2006)[13]. It is important to consider fault and stress data in geothermal exploration within the context of which parts of the fault plane may be more prone to shear reactivation or open shear conditions. These areas may include zones of fault overlap and the tips of faults where propagation stresses can significantly enhance permeability.

7.5. Recommendations for Stress Modelling

HDRPL recommends that available stress direction and magnitude data for the Perth Basin be incorporated into a 3D numerical stress model to better constrain areas of likely fault reactivation. A number of commercial software packages can facilitate this process (eg. UDEC). It is not within the scope of this study to detail software specific inputs and outputs, but most numerical stress models will require the following in addition to stress data, and HDRPL recommends that the following be acquired for modelling purposes:-

- Ultrasonic measurements of rock strength properties including Young's Modulus and Stiffness for various lithologies. Core samples should be targeted from varying depths to cover possible geothermal target horizons.
- Pore pressure data from DSTs
- Detailed collation or mapping of onshore faults. This may require remapping of seismically defined faults within the basin.

With regards to the collection of new stress data, some consideration may be given to the use of new Acoustic Emission (AE) techniques developed by the Western Australian School of Mines. The utilisation of this methodology would however require oriented core samples and this would involve detailed BHTV acoustic logging of selected wells and a program of core fracture logging.

8. Discussion, conclusions & recommendations

The 162 wells modelled in this study suggest that the Perth Basin has a median heat flow 76.5 mW/m^2 for single wells/fields. This is moderately higher than the Australian median of 64.5 mW/m^2. Heat flow appears lowest in the south of the basin (Bunbury Trough area) and increases to the north, reaching maximum apparent values >90 mW/m^2 north of Eneabba. The marked change in apparent heat flow north of latitude

30°00’ may signify the increased influence of buried granites, particularly the Northampton Complex, on crustal heat flow in the area.

Present geothermal electricity generation technology for EGS plants probably requires a minimum resource temperature of >150°C to be commercial. HDRPL notes, however, that recent advances in technology may reduce this minimum temperature requirement. Regardless, low temperature resources can be utilised for other purposes, including direct use in horticulture, aquaculture and urban design. Target temperatures should be considered in conjunction with target depths to reduce the burden of drilling cost versus extractable energy.

A number of areas in the central and northern Perth Basin have the modelled 150°C isotherm at <5 km depth and these areas may be prospective for EGS development (subject to other risks being mitigated). The apparent increase in heat flow towards the north of the basin results in the modelled 150°C isotherm becoming increasingly shallower north of Eneabba (<3000 m depth near Dongara) and may indicate the possibility of developing Deeply Buried Sedimentary Aquifer (DBSA) geothermal systems where suitably permeable sedimentary rocks are present.

HDRPL makes the following specific recommendations for future studies:-

- Increase the spatial density of heat flow values, particularly in the south and central basin, by incorporating the previously studied 80 wells into the results of this study.
- Incorporate data from this report into a 3D conductive heat flow model.
- Obtain new heat flow data via precision temperature logging of existing petroleum wells, where these can be re-entered, or water bores.
- Develop a program of rock thermal conductivity measurement to better constraining heat flow and temperature projections, especially in the vicinity of coal measures.
- Undertake a more detailed appraisal of the Perth Basin, incorporating the data derived from this study and utilising 3D conductive heat flow modelling.
- Further investigate the heat generation potential of regional rock units.

- Examine evidence for coal distribution and thickness, and the thermal conductivity implications of these parameters.
- Incorporate available stress direction and magnitude data for the Perth Basin into a 3D numerical stress model to constrain areas of likely fault reactivation.
- Acquire ultrasonic measurements of rock strength properties including Young's Modulus and Stiffness for various lithologies.
- Investigate pore pressure data from DSTs.
- Collate or map distribution of onshore faults.

Attachment A: 170 wells not previously studied

No	WELL_NAME	WELL_ID	CLASSIFICATION	OFF_SHORE_Y_N	DATUM	LATITUDE (Decimal Degrees)	LONGITUDE (Decimal Degrees)	BASIN_NAME	SUB_BASIN
1	Alexandra Bridge 1	W000122	STR	N	GDA94	-34.1563046	115.2615556	Perth	Bunbury Trough
2	Apium 1	W002677	NFW	N	GDA94	-29.3159611	115.0710306	Perth	Dandaragan Trough
3	Araucaria 1	W001839	NFW	Y	GDA94	-32.2114115	115.3623237	Perth	Vlaming Sub-basin
4	Arradale 1	W002505	NFW	N	GDA94	-29.1076543	115.3131222	Perth	Dandaragan Trough
5	Arranoo South 1	W001950	NFW	N	GDA94	-29.1553658	115.0851691	Perth	Dandaragan Trough
6	Badaminna 1	W000172	NFW	N	GDA94	-31.3407209	115.6686951	Perth	Dandaragan Trough
7	Barberton 1	W001678	NFW	N	GDA94	-30.8180179	115.9736591	Perth	Dandaragan Trough
8	Barragoon 1	W000895	NFW	N	GDA94	-31.3598714	115.587374	Perth	Dandaragan Trough
9	Batavia 1	W000949	NFW	Y	GDA94	-28.8984028	114.261554	Perth	Abrolhos Sub-basin
10	Beharra Springs North 1	W002473	NFW	N	GDA94	-29.4341778	115.1453806	Perth	Dandaragan Trough
11	Beharra Springs South 1	W002482	NFW	N	GDA94	-29.5035833	115.1528667	Perth	Dandaragan Trough
12	Blackwood 1	W000732	NFW	N	GDA94	-34.1474176	115.357075	Perth	Bunbury Trough
13	Bootine 1	W001058	NFW	N	GDA94	-31.1765032	115.8270201	Perth	Dandaragan Trough
14	Bouvard 1	W000906	NFW	Y	GDA94	-32.5226829	115.254418	Perth	Vlaming Sub-basin
15	Bullsbrook 1	W000850	NFW	N	GDA94	-31.4766837	115.8426303	Perth	Dandaragan Trough
16	Bunjong 1	W002808	NFW	N	GDA94	-29.2321722	114.9369722	Perth	Dongara Saddle
17	Cadda 1	W000120	NFW	N	GDA94	-30.3362726	115.2147926	Perth	Beagle Ridge
18	Canebreak 1	W001117	NFW	N	GDA94	-34.2826236	115.4697632	Perth	Bunbury Trough
19	Casuarinas 1	W001100	NFW	N	GDA94	-28.9254272	115.1533857	Perth	Dandaragan Trough
20	Cataby 1	W001902	NFW	N	GDA94	-30.6863946	115.3336049	Perth	Dandaragan Trough
21	Central Yardarino 1	W001999	NFW	N	GDA94	-29.199241	115.0513492	Perth	Dandaragan Trough
22	Challenger 1	W000908	NFW	Y	GDA94	-32.4212357	115.0143496	Perth	Vlaming Sub-basin
23	Chapman Hill 1	W001801	NFW	N	GDA94	-33.7711033	115.3150276	Perth	Bunbury Trough
24	Charlotte 1	W000716	NFW	Y	GDA94	-31.8087828	115.4503696	Perth	Vlaming Sub-basin
25	Cliff Head 1	W002512	NFW	Y	GDA94	-29.4645919	114.8697472	Perth	Abrolhos Sub-basin
26	Cliff Head 13H	W002824	DEV	Y	GDA94	-29.4500972	114.8700417	Perth	Abrolhos Sub-basin
27	Cliff Head 3	W002568	EXT	Y	GDA94	-29.436545	114.8640158	Perth	Abrolhos Sub-basin
28	Cliff Head 4	W002586	EXT	Y	GDA94	-29.4460592	114.8673556	Perth	Abrolhos Sub-basin
29	Cliff Head 9H	W002822	DEV	Y	GDA94	-29.4500972	114.8700278	Perth	Abrolhos Sub-basin
30	Cockburn 1	W000170	NFW	N	GDA94	-32.1337829	115.7381513	Perth	Dandaragan Trough
31	Cypress Hill 1	W001583	NFW	N	GDA94	-30.4629756	115.8131819	Perth	Dandaragan Trough
32	Dandaragan 1	W001991	NFW	N	GDA94	-30.5964245	115.8088665	Perth	Dandaragan Trough
33	Dongara 02	W000159	EXT	N	GDA94	-29.2484314	114.9781396	Perth	Dongara Saddle
34	Dongara 03	W000164	EXT	N	GDA94	-29.2578201	115.0031396	Perth	Dongara Saddle
35	Dongara 04	W000661	EXT	N	GDA94	-29.2294589	114.9835006	Perth	Dongara Saddle
36	Dongara 05	W000679	EXT	N	GDA94	-29.1872364	114.9850554	Perth	Dongara Saddle
37	Dongara 06	W000684	EXT	N	GDA94	-29.1947925	114.9410554	Perth	Dongara Saddle
38	Dongara 07	W000686	EXT	N	GDA94	-29.3095147	115.0300568	Perth	Dandaragan Trough
39	Dongara 08	W000722	EXT	N	GDA94	-29.2512641	115.0238896	Perth	Dandaragan Trough
40	Dongara 09	W000723	EXT	N	GDA94	-29.224042	115.0037505	Perth	Dongara Saddle
41	Dongara 10	W000733	EXT	N	GDA94	-29.2389587	115.0056118	Perth	Dongara Saddle
42	Dongara 11	W000735	EXT	N	GDA94	-29.2664311	115.0102509	Perth	Dongara Saddle
43	Dongara 12	W000739	EXT	N	GDA94	-29.2380973	115.0227228	Perth	Dandaragan Trough
44	Dongara 13	W000740	EXT	N	GDA94	-29.212792	114.9977781	Perth	Dongara Saddle
45	Dongara 14	W000745	EXT	N	GDA94	-29.224014	115.0190559	Perth	Dandaragan Trough
46	Dongara 15	W000742	EXT	N	GDA94	-29.2745422	115.0186676	Perth	Dandaragan Trough
47	Dongara 16	W000747	EXT	N	GDA94	-29.2694036	114.994251	Perth	Dongara Saddle
48	Dongara 17	W000750	EXT	N	GDA94	-29.2849311	115.0290565	Perth	Dandaragan Trough
49	Dongara 18	W000752	EXT	N	GDA94	-29.2747642	115.0350286	Perth	Dandaragan Trough
50	Dongara 19	W000753	EXT	N	GDA94	-29.2665973	115.046723	Perth	Dandaragan Trough
51	Dongara 20	W000899	DEV	N	GDA94	-29.2662642	115.0230564	Perth	Dandaragan Trough
52	Dongara 21	W001018	DEV	N	GDA94	-29.2337086	115.0134728	Perth	Dongara Saddle
53	Dongara 22	W001023	DEV	N	GDA94	-29.238959	114.9801673	Perth	Dongara Saddle
54	Dongara 23	W001056	DEV	N	GDA94	-29.2609866	115.0068341	Perth	Dongara Saddle
55	Dongara 24	W001061	DEV	N	GDA94	-29.2359585	115.0182228	Perth	Dandaragan Trough

56	Dongara 25	W001065	DEV	N	GDA94	-29.2417362	115.0262228	Perth	Dandaragan Trough
57	Dongara 26	W001654	DEV	N	GDA94	-29.2459647	114.9722452	Perth	Dongara Saddle
58	Dongara 27	W001655	DEV	N	GDA94	-29.2004637	115.0233445	Perth	Dandaragan Trough
59	Dongara 28	W002001	DEV	N	GDA94	-29.2437002	115.015334	Perth	Dongara Saddle
60	Dongara 29	W002355	DEV	N	GDA94	-29.252703	115.0245646	Perth	Dandaragan Trough
61	Dongara 30	W002362	DEV	N	GDA94	-29.252703	115.0245655	Perth	Dandaragan Trough
62	Dongara 34	W002741	DEV	N	GDA94	-29.2339958	115.0196631	Perth	Dandaragan Trough
63	East Lake Logue 2	W001819	DEV	N	GDA94	-29.8179686	115.1561745	Perth	Dandaragan Trough
64	Eclipse 1	W002597	NFW	N	GDA94	-31.4315353	115.8782583	Perth	Dandaragan Trough
65	Eganu 1	W000013	STR	N	GDA94	-29.9845964	115.8297869	Perth	Dandaragan Trough
66	Eremia 1	W002588	NFW	N	GDA94	-29.3089861	115.0180833	Perth	Dandaragan Trough
67	Eremia 3	W002715	EXT	N	GDA94	-29.3106303	115.0166528	Perth	Dandaragan Trough
68	Felix 1	W002191	NFW	Y	GDA94	-32.744331	114.8428262	Perth	Vlaming Sub-basin
69	Gage Roads 1	W000705	NFW	Y	GDA94	-31.9546176	115.3800927	Perth	Vlaming Sub-basin
70	Gage Roads 2	W000790	EXT	Y	GDA94	-31.9501734	115.3639814	Perth	Vlaming Sub-basin
71	Geelvink 1A	W000935	NFW	Y	GDA94	-29.0924147	114.2996046	Perth	Abrolhos Sub-basin
72	Gingin 1	W000090	NFW	N	GDA94	-31.1430556	115.8272222	Perth	Dandaragan Trough
73	Gingin 2	W000119	EXT	N	GDA94	-31.1722222	115.8441667	Perth	Dandaragan Trough
74	Greenough 1	W001208	NFW	N	GDA94	-28.8528059	114.6564862	Perth	Abrolhos Sub-basin
75	Gun Island 1	W000701	STR	N	GDA94	-28.8904681	113.8589427	Perth	Abrolhos Sub-basin
76	Hakia 1	W002351	NFW	N	GDA94	-29.2159313	115.0960339	Perth	Dandaragan Trough
77	Hampton Arms 1	W001951	STR	N	GDA94	-28.9682799	114.7441398	Perth	Abrolhos Sub-basin
78	Hill River 2	W000003	STR	N	GDA94	-30.1821052	115.23479	Perth	Dandaragan Trough
79	Hill River 4	W000005	STR	N	GDA94	-30.3898838	115.2336811	Perth	Beagle Ridge
80	Houtman 1	W000922	NFW	Y	GDA94	-28.6640521	113.5778219	Perth	Houtman Sub-basin
81	Hovea 1	W002493	NFW	N	GDA94	-29.3168333	115.0422111	Perth	Dandaragan Trough
82	Hovea 2	W002540	EXT	N	GDA94	-29.3117556	115.0431028	Perth	Dandaragan Trough
83	Hovea 3	W002544	EXT	N	GDA94	-29.3179778	115.041275	Perth	Dandaragan Trough
84	Hovea 4	W002559	EXT	N	GDA94	-29.3189852	115.0411722	Perth	Dandaragan Trough
85	Hovea 5	W002573	DEV	N	GDA94	-29.3191027	115.0416667	Perth	Dandaragan Trough
86	Hovea 6	W002577	DEV	N	GDA94	-29.3191027	115.0416667	Perth	Dandaragan Trough
87	Hovea 7	W002580	DEV	N	GDA94	-29.3191027	115.0416667	Perth	Dandaragan Trough
88	Hovea 9	W002633	EXT	N	GDA94	-29.3282119	115.0441667	Perth	Dandaragan Trough
89	Huntswell 1	W001939	NFW	N	GDA94	-29.1166084	115.1312943	Perth	Dandaragan Trough
90	Illyarrie 1	W002342	NFW	N	GDA94	-29.2296897	115.0466834	Perth	Dandaragan Trough
91	Jingemia 1	W002551	NFW	N	GDA94	-29.3394861	114.9909917	Perth	Beagle Ridge
92	Jingemia 2	W002621	EXT	N	GDA94	-29.3392722	114.9897139	Perth	Beagle Ridge
93	Jingemia 3	W002627	EXT	N	GDA94	-29.3392722	114.9897139	Perth	Beagle Ridge
94	Kingia 1	W002654	NFW	N	GDA94	-29.3925639	115.0287944	Perth	Dandaragan Trough
95	Lake Preston 1	W000862	NFW	N	GDA94	-32.9189195	115.6622893	Perth	Bunbury Trough
96	Leafcutter 1	W002622	NFW	N	GDA94	-29.8523421	115.0542361	Perth	Beagle Ridge
97	Livet 1	W002068	NFW	Y	GDA94	-27.2746733	112.904198	Perth	Abrolhos Sub-basin
98	Lockyer 1	W002192	NFW	N	GDA94	-29.1848115	115.262405	Perth	Dandaragan Trough
99	Marri 1	W001775	NFW	Y	GDA94	-31.7447646	115.3568604	Perth	Vlaming Sub-basin
100	Mentelle 1	W002578	NFW	Y	GDA94	-29.4359181	114.8891722	Perth	Abrolhos Sub-basin
101	Minder Reef 1	W001336	NFW	Y	GDA94	-31.7213644	115.3449516	Perth	Vlaming Sub-basin
102	Morangie 1	W002554	NFW	Y	GDA94	-27.3748706	112.9249611	Perth	Abrolhos Sub-basin
103	Mt Horner 02	W000113	EXT	N	GDA94	-29.1458	115.0778	Perth	Dandaragan Trough
104	Mt Horner 03	W001052	EXT	N	GDA94	-29.1284628	115.0864438	Perth	Dandaragan Trough
105	Mt Horner 04	W001054	EXT	N	GDA94	-29.1290627	115.0914438	Perth	Dandaragan Trough
106	Mt Horner 04A	W001544	DEV	N	GDA94	-29.1284627	115.0917438	Perth	Dandaragan Trough
107	Mt Horner 05	W001060	EXT	N	GDA94	-29.1254627	115.0895437	Perth	Dandaragan Trough
108	Mt Horner 05A	W001546	DEV	N	GDA94	-29.1256627	115.0903437	Perth	Dandaragan Trough
109	Mt Horner 06	W001305	DEV	N	GDA94	-29.1354628	115.0917216	Perth	Dandaragan Trough
110	Mt Horner 07	W001513	EXT	N	GDA94	-29.123196	115.0927437	Perth	Dandaragan Trough
111	Mt Horner 08	W001552	DEV	N	GDA94	-29.1323628	115.0931105	Perth	Dandaragan Trough
112	Mt Horner 09	W001551	EXT	N	GDA94	-29.1268627	115.0944993	Perth	Dandaragan Trough
113	Mt Horner 10	W001591	DEV	N	GDA94	-29.1310016	115.0978546	Perth	Dandaragan Trough

114	Mt Horner 11	W001633	DEV	N	GDA94	-29.1459628	115.110344	Perth	Dandaragan Trough
115	Mt Horner 12	W001814	DEV	N	GDA94	-29.1218628	115.0845437	Perth	Dandaragan Trough
116	Mt Horner 13	W001835	DEV	N	GDA94	-29.1179293	115.098388	Perth	Dandaragan Trough
117	Mt Horner 14	W001873	EXT	N	GDA94	-29.1227016	115.0887104	Perth	Dandaragan Trough
118	Mullaloo 1	W001320	NFW	Y	GDA94	-31.8662862	115.4631996	Perth	Vlaming Sub-basin
119	Mullering 1	W001800	NFW	N	GDA94	-30.6894716	115.3263616	Perth	Dandaragan Trough
120	Mungarra 1	W000083	STR	N	GDA94	-28.850427	115.1186627	Perth	Dandaragan Trough
121	Mungarra 5	W000087	STR	N	GDA94	-28.8945938	115.1381077	Perth	Dandaragan Trough
122	Mungenooka 1	W002248	NFW	N	GDA94	-29.3909879	115.2135018	Perth	Dandaragan Trough
123	Murrumbah 1	W002236	NFW	N	GDA94	-29.1574288	115.1797494	Perth	Dandaragan Trough
124	Narkarino 1	W001318	NFW	N	GDA94	-29.1169838	114.9013131	Perth	Dongara Saddle
125	Parmelia 1	W001039	NFW	Y	GDA94	-32.2986075	115.0771118	Perth	Vlaming Sub-basin
126	Peel 1	W000924	NFW	Y	GDA94	-32.2620656	115.4467651	Perth	Vlaming Sub-basin
127	Pinjarra 1	W000127	NFW	N	GDA94	-32.6767	115.7730556	Perth	Dandaragan Trough
128	Quinns Rock 1	W000707	NFW	Y	GDA94	-31.8023922	115.5170357	Perth	Dandaragan Trough
129	Rakrani 1	W001639	NFW	N	GDA94	-29.170209	114.9011942	Perth	Beagle Ridge
130	Redback 1	W002656	NFW	N	GDA94	-29.4577917	115.1620861	Perth	Dandaragan Trough
131	Rockingham 1	W001213	NFW	N	GDA94	-32.2926716	115.8907366	Perth	Dandaragan Trough
132	Roe 1	W000787	NFW	Y	GDA94	-31.9404514	115.3217588	Perth	Vlaming Sub-basin
133	Rosslyn 1	W002033	NFW	N	GDA94	-29.0686738	115.0474142	Perth	Dandaragan Trough
134	Rutile 1	W002369	NFW	N	GDA94	-34.0261583	115.3554778	Perth	Bunbury Trough
135	Sabina River 1	W001176	NFW	N	GDA94	-33.6648291	115.4112064	Perth	Bunbury Trough
136	Scott River 1	W001975	NFW	N	GDA94	-34.2652031	115.3370424	Perth	Bunbury Trough
137	South Turtle Dove 1B	W000907	NFW	Y	GDA94	-30.1283005	114.6379014	Perth	Turtle Dove Ridge
	South Turtle Dove 1B	W000907	NFW	Y	GDA94	-30.1283005	114.6379014	Perth	Turtle Dove Ridge
	South Turtle Dove 1B	W000907	NFW	Y	GDA94	-30.1283005	114.6379014	Perth	Turtle Dove Ridge
138	Sue 1	W000141	NFW	N	GDA94	-34.0646392	115.3192958	Perth	Bunbury Trough
139	Sugarloaf 1	W000791	NFW	Y	GDA94	-32.9151898	115.0562224	Perth	Vlaming Sub-basin
140	Tuart 1	W001776	NFW	Y	GDA94	-31.9501706	115.3590925	Perth	Vlaming Sub-basin
141	Twin Lions 1	W002575	NFW	Y	GDA94	-29.3695361	114.88645	Perth	Beagle Ridge
142	Vindara 1	W002582	NFW	Y	GDA94	-29.4981167	114.9357111	Perth	Beagle Ridge
143	Walyering 1	W000792	NFW	N	GDA94	-30.7146063	115.4667421	Perth	Dandaragan Trough
144	Walyering 2	W000802	EXT	N	GDA94	-30.7021062	115.475353	Perth	Dandaragan Trough
145	Walyering 3	W000815	EXT	N	GDA94	-30.7334953	115.4956312	Perth	Dandaragan Trough
146	Walyering 4	W002507	EXT	N	GDA94	-30.7153674	115.4705694	Perth	Dandaragan Trough
147	Warnbro 1	W000784	NFW	Y	GDA94	-32.2387896	115.3487102	Perth	Vlaming Sub-basin
148	Wayvanerry 1	W002202	NFW	N	GDA94	-29.1459608	115.2973736	Perth	Dandaragan Trough
149	Whicher Range 1	W000690	NFW	N	GDA94	-33.8355533	115.3744518	Perth	Bunbury Trough
150	Whicher Range 2	W001037	EXT	N	GDA94	-33.8406503	115.3839049	Perth	Bunbury Trough
151	Whicher Range 3	W001096	EXT	N	GDA94	-33.8708393	115.3942354	Perth	Bunbury Trough
152	Whicher Range 4	W002150	EXT	N	GDA94	-33.8395549	115.3684709	Perth	Bunbury Trough
153	Whicher Range 5	W002634	EXT	N	GDA94	-33.8484306	115.3602306	Perth	Bunbury Trough
154	Wicherina 1	W000067	NFW	N	GDA94	-28.8312588	115.2419955	Perth	Dandaragan Trough
155	Wittecarra 1	W001474	NFW	Y	GDA94	-27.8425637	113.2105215	Perth	Abrolhos Sub-basin
156	Wonnerup 1	W000829	NFW	N	GDA94	-33.6307719	115.4726617	Perth	Bunbury Trough
157	Woodada 08	W001302	EXT	N	GDA94	-29.8618308	115.1467285	Perth	Beagle Ridge
158	Woodada 09	W001322	DEV	N	GDA94	-29.882669	115.1614531	Perth	Beagle Ridge
159	Woodada 10	W001327	DEV	N	GDA94	-29.8154686	115.1306522	Perth	Dandaragan Trough
160	Woodada 11	W001760	DEV	N	GDA94	-29.8284687	115.1436524	Perth	Dandaragan Trough
161	Woodada 12	W001771	EXT	N	GDA94	-29.8351105	115.129858	Perth	Beagle Ridge
162	Woodada 14	W001944	DEV	N	GDA94	-29.8345299	115.1408024	Perth	Beagle Ridge
163	Woodada 15	W001977	DEV	N	GDA94	-29.8209632	115.1475233	Perth	Dandaragan Trough
164	Woodada 17	W002513	EXT	N	GDA94	-29.8620842	115.1466694	Perth	Beagle Ridge
165	Woodada 19	W002533	EXT	N	GDA94	-29.8628527	115.1395278	Perth	Beagle Ridge
166	Wye 1	W002037	NFW	N	GDA94	-29.1127949	114.9911096	Perth	Dongara Saddle
167	Xyris 1	W002663	NFW	N	GDA94	-29.3071611	115.0926167	Perth	Dandaragan Trough
168	Yallallie 1	W001677	NFW	N	GDA94	-30.3432944	115.7726801	Perth	Dandaragan Trough
169	Yardarino 3	W000081	EXT	N	GDA94	-29.2255556	115.055	Perth	Dandaragan Trough
170	Yardarino 5	W002468	DEV	N	GDA94	-29.2197133	115.0605114	Perth	Dandaragan Trough

Attachment B: 80 wells previously studied

No	WELL_NAME	CLASSIFICATION	OFF_SHORE_Y_N	DATUM	LATITUDE (Decimal Degrees)	LONGITUDE (Decimal Degrees)	BASIN_NAME	SUB_BASIN
1	Allanooka 1	NFW	N	GDA94	-29.1424917	115.0143939	Perth	Dongara Saddle
2	Arramall 1	NFW	N	GDA94	-29.5897553	115.0972073	Perth	Dandaragan Trough
3	Arranoo 1	NFW	N	GDA94	-29.1387029	115.0787633	Perth	Dandaragan Trough
4	Arrowsmith 1	NFW	N	GDA94	-29.6108298	115.1186324	Perth	Dandaragan Trough
5	Beekeeper 1	NFW	N	GDA94	-29.7126982	115.1866486	Perth	Dandaragan Trough
6	Beharra 1	NFW	N	GDA94	-29.4848757	115.0139519	Perth	Beagle Ridge
7	Beharra 2	NFW	N	GDA94	-29.5154299	115.0208959	Perth	Beagle Ridge
8	Beharra Springs 1	NFW	N	GDA94	-29.464129	115.1411643	Perth	Dandaragan Trough
9	Beharra Springs 2	EXT	N	GDA94	-29.4780041	115.1449391	Perth	Dandaragan Trough
10	Beharra Springs 3	EXT	N	GDA94	-29.4554399	115.1408531	Perth	Dandaragan Trough
11	Bonniefield 1	NFW	N	GDA94	-29.1702867	114.9144776	Perth	Beagle Ridge
12	Bookara 1	STR	N	GDA94	-28.9834872	114.7731095	Perth	Dongara Saddle
13	Bookara 2	STR	N	GDA94	-29.1662645	114.9114442	Perth	Dongara Saddle
14	Bookara 3	STR	N	GDA94	-29.107375	114.8903316	Perth	Dongara Saddle
15	Conder 1	NFW	N	GDA94	-29.0440396	114.9242189	Perth	Dandaragan Trough
16	Connolly 1	NFW	N	GDA94	-29.0365412	114.9531095	Perth	Dandaragan Trough
17	Coomallo 1	NFW	N	GDA94	-30.2475142	115.4174034	Perth	Dandaragan Trough
18	Denison 1	NFW	N	GDA94	-29.2244036	114.9561116	Perth	Dongara Saddle
19	Depot Hill 1	NFW	N	GDA94	-29.100425	115.3264429	Perth	Dandaragan Trough
20	Dongara 01	NFW	N	GDA94	-29.2520979	114.9905564	Perth	Dongara Saddle
21	Donkey Creek 1	NFW	N	GDA94	-29.6251543	115.2917284	Perth	Dandaragan Trough
22	East Heaton 1	NFW	N	GDA94	-29.113206	115.251173	Perth	Dandaragan Trough
23	East Lake Logue 1	NFW	N	GDA94	-29.8329327	115.1547855	Perth	Dandaragan Trough
24	Ejarno 1	NFW	N	GDA94	-29.3138419	115.0773318	Perth	Dandaragan Trough
25	Eleven Mile 1	NFW	N	GDA94	-29.0762641	114.8839433	Perth	Dongara Saddle
26	Eneabba 1	NFW	N	GDA94	-29.5693201	115.3336675	Perth	Dandaragan Trough
27	Erregulla 1	NFW	N	GDA94	-29.3759831	115.398944	Perth	Dandaragan Trough
28	Erregulla 2	EXT	N	GDA94	-29.3740371	115.398936	Perth	Dandaragan Trough
29	Eurangoa 1	NFW	N	GDA94	-29.1259833	115.1392214	Perth	Dandaragan Trough
30	Gairdner 1	NFW	N	GDA94	-30.0701096	115.1472029	Perth	Beagle Ridge
31	Georgina 1	NFW	N	GDA94	-29.1433741	115.0749439	Perth	Dandaragan Trough
32	Heaton 1	NFW	N	GDA94	-29.1204282	115.2139432	Perth	Dandaragan Trough
33	Hill River 3	STR	N	GDA94	-30.0087699	115.1903425	Perth	Dandaragan Trough
34	Horner West 1	NFW	N	GDA94	-29.135369	115.0442855	Perth	Dandaragan Trough
35	Hunt Gully 1	NFW	N	GDA94	-29.097098	115.153496	Perth	Dandaragan Trough
36	Indoon 1	NFW	N	GDA94	-29.8823968	115.1526643	Perth	Beagle Ridge
37	Jay 1	NFW	N	GDA94	-29.0777598	115.0578515	Perth	Dandaragan Trough
38	Jurien 1	NFW	N	GDA94	-30.1455556	115.0483333	Perth	Beagle Ridge
39	Leander Reef 1	NFW	Y	GDA94	-29.4383787	114.7376067	Perth	Abrolhos Sub-basin
40	Mondarra 1	NFW	N	GDA94	-29.3004016	115.1181085	Perth	Dandaragan Trough
41	Mondarra 2	EXT	N	GDA94	-29.3512642	115.1047792	Perth	Dandaragan Trough
42	Mondarra 3	EXT	N	GDA94	-29.2920969	115.1142232	Perth	Dandaragan Trough
43	Mondarra 4	EXT	N	GDA94	-29.3190417	115.1028337	Perth	Dandaragan Trough
44	Mooratara 1	NFW	N	GDA94	-29.2128481	114.9102669	Perth	Beagle Ridge
45	Mountain Bridge 1	NFW	N	GDA94	-29.6001207	115.1153792	Perth	Dandaragan Trough
46	Mt Adams 1	NFW	N	GDA94	-29.4057102	115.1681145	Perth	Dandaragan Trough
47	Mt Hill 1	STR	N	GDA94	-29.0679294	114.985332	Perth	Dandaragan Trough
48	Mt Horner 01	NFW	N	GDA94	-29.1282072	115.0864438	Perth	Dandaragan Trough
49	Mungarra 2	STR	N	GDA94	-28.9082054	115.0847411	Perth	Dandaragan Trough
50	Mungarra 4	STR	N	GDA94	-28.904037	115.2669964	Perth	Dandaragan Trough

51	Narlingue 1	NFW	N	GDA94	-29.0693177	115.1042209	Perth	Dandaragan Trough
52	North Erregulla 1	NFW	N	GDA94	-29.2443172	115.3275556	Perth	Dandaragan Trough
53	North Yardanogo 1	NFW	N	GDA94	-29.4663213	115.1027273	Perth	Dandaragan Trough
54	North Yardarino 1	NFW	N	GDA94	-29.1887134	115.0414888	Perth	Dandaragan Trough
55	Ocean Hill 1	NFW	N	GDA94	-29.9356502	115.3978482	Perth	Dandaragan Trough
56	Peron 1	NFW	N	GDA94	-29.951103	115.1607594	Perth	Beagle Ridge
57	Point Louise 1	NFW	N	GDA94	-30.0388797	115.0704356	Perth	Beagle Ridge
58	Robb 1	NFW	N	GDA94	-29.5453188	115.0383406	Perth	Beagle Ridge
59	South Yardanogo 1	NFW	N	GDA94	-29.497936	115.1045209	Perth	Dandaragan Trough
60	Strawberry Hill 1	NFW	N	GDA94	-29.2534632	115.1225451	Perth	Dandaragan Trough
61	Tabletop 1	NFW	N	GDA94	-29.0913971	115.1215539	Perth	Dandaragan Trough
62	Tarantula 1	NFW	N	GDA94	-29.4223667	115.138475	Perth	Dandaragan Trough
63	Warradong 1	NFW	N	GDA94	-29.3002664	115.1727495	Perth	Dandaragan Trough
64	Warramia 1	NFW	N	GDA94	-30.1844157	115.7293949	Perth	Dandaragan Trough
65	Warro 1	NFW	N	GDA94	-30.167184	115.7378841	Perth	Dandaragan Trough
66	Warro 2	NFW	N	GDA94	-30.1668386	115.7355752	Perth	Dandaragan Trough
67	Wattle Grove 1	NFW	N	GDA94	-29.1428756	114.9064439	Perth	Dongara Saddle
68	West Erregulla 1	NFW	N	GDA94	-29.4258069	115.3103839	Perth	Dandaragan Trough
69	West White Point 1	NFW	N	GDA94	-29.3448758	115.0411759	Perth	Dandaragan Trough
70	West White Point 2	NFW	N	GDA94	-29.3787651	115.0431121	Perth	Dandaragan Trough
71	Woodada 01	NFW	N	GDA94	-29.7945683	115.1406328	Perth	Dandaragan Trough
72	Woodada 02	EXT	N	GDA94	-29.7938659	115.1535144	Perth	Dandaragan Trough
73	Woodada 03	EXT	N	GDA94	-29.7533512	115.1572041	Perth	Dandaragan Trough
74	Woodada 04	EXT	N	GDA94	-29.8338244	115.1440885	Perth	Beagle Ridge
75	Woodada 05	EXT	N	GDA94	-29.771496	115.1411349	Perth	Dandaragan Trough
76	Woodada 06	EXT	N	GDA94	-29.8106296	115.1418965	Perth	Dandaragan Trough
77	Woolmulla 1	NFW	N	GDA94	-30.0232145	115.1942326	Perth	Dandaragan Trough
78	Yardarino 1	NFW	N	GDA94	-29.2219444	115.055	Perth	Dandaragan Trough
79	Yardarino 2	NFW	N	GDA94	-29.2042664	115.0655142	Perth	Dandaragan Trough
80	Yardarino 4	EXT	N	GDA94	-29.2160434	115.0494471	Perth	Dandaragan Trough

Attachment C: Basement lithology and depths for wells to be assessed.

Well name	TD (m)	Probable Basement Lithology	Basement Depth (m)	Depth to basement from TD (m)	DATUM	North (Decimal Degrees)	East (Decimal Degrees)	Sub Basin
Alexandra Bridge 1	766	Granite	2250	1484	GDA94	-34.1563	115.2616	Bunbury Trough
Apium 1	2860	Granite	5000	2140	GDA94	-29.316	115.071	Dandaragan Trough
Araucaria 1	2218	Granite	10000	7782	GDA94	-32.2114	115.3623	Vlaming Sub-basin
Arradale 1	2245	Gneiss	4250	2005	GDA94	-29.1077	115.3131	Dandaragan Trough
Arranoo South 1	1782	Gneiss	2750	968	GDA94	-29.1554	115.0852	Dandaragan Trough
Badaminna 1	2438.4	?	10500	8061.6	GDA94	-31.3407	115.6687	Dandaragan Trough
Barberton 1	3414	Gneiss	3750	336	GDA94	-30.818	115.9737	Dandaragan Trough
Barragoon 1	2335	?	6000	3665	GDA94	-31.3599	115.5874	Dandaragan Trough
Batavia 1	2941	Gneiss	4500	1559	GDA94	-28.8984	114.2616	Abrolhos Sub-basin
Beharra Springs North 1	3450	PreC Gneiss	7250	3800	GDA94	-29.4342	115.1454	Dandaragan Trough
Beharra Springs South 1	3471.9	PreC Gneiss	7500	4028.1	GDA94	-29.5036	115.1529	Dandaragan Trough
Blackwood 1	3333	Granite	4500	1167	GDA94	-34.1474	115.3571	Bunbury Trough
Bootine 1	4306	?	14000	9694	GDA94	-31.1765	115.827	Dandaragan Trough
Bouvard 1	1980	Granite	10000	8020	GDA94	-32.5227	115.2544	Vlaming Sub-basin
Bullsbrook 1	4257	?	14000	9743	GDA94	-31.4767	115.8426	Dandaragan Trough
Bunjong 1	2205	Gneiss	2250	45	GDA94	-29.2322	114.937	Dongara Saddle
Cadda 1	2794.71	Gneiss	2743	-51.71	GDA94	-30.3363	115.2148	Beagle Ridge
Canebreak 1	2090	Granite	4000	1910	GDA94	-34.2826	115.4698	Bunbury Trough
Casuarinas 1	1478	Gneiss	2500	1022	GDA94	-28.9254	115.1534	Dandaragan Trough
Cataby 1	2298	Gneiss	7250	4952	GDA94	-30.6864	115.3336	Dandaragan Trough

Well name	TD (m)	Probable Basement Lithology	Basement Depth (m)	Depth to basement from TD (m)	DATUM	North (Decimal Degrees)	East (Decimal Degrees)	Sub Basin
Central Yardarino 1	2500	Gneiss	3250	750	GDA94	-29.1992	115.0513	Dandaragan Trough
Challenger 1	2250	Granite	8000	5750	GDA94	-32.4212	115.0143	Vlaming Sub-basin
Chapman Hill 1	1350	Granite	2500	1150	GDA94	-33.7711	115.315	Bunbury Trough
Charlotte 1	2435.35	Gneiss	7500	5064.65	GDA94	-31.8088	115.4504	Vlaming Sub-basin
Cliff Head 1	1499	Granite	1480	-19	GDA94	-29.4646	114.8697	Abrolhos Sub-basin
Cliff Head 13H	2739	Granite	2800	61	GDA94	-29.4501	114.87	Abrolhos Sub-basin
Cliff Head 3	1408	Granite	1388	-20	GDA94	-29.4365	114.864	Abrolhos Sub-basin
Cliff Head 4	1598	Granite	1594	-4	GDA94	-29.4461	114.8674	Abrolhos Sub-basin
Cliff Head 9H	2684	Granite	2800	116	GDA94	-29.4501	114.87	Abrolhos Sub-basin
Cockburn 1	3054.1	Granite	9500	6445.9	GDA94	-32.1338	115.7382	Dandaragan Trough
Cypress Hill 1	990	?	13500	12510	GDA94	-30.463	115.8132	Dandaragan Trough
Dandaragan 1	1103	?	14500	13397	GDA94	-30.5964	115.8089	Dandaragan Trough
Dongara 02	1745	Gneiss	2750	1005	GDA94	-29.2484	114.9781	Dongara Saddle
Dongara 03	1775	Gneiss	3500	1725	GDA94	-29.2578	115.0031	Dongara Saddle
Dongara 04	1818	Gneiss	2750	932	GDA94	-29.2295	114.9835	Dongara Saddle
Dongara 05	1808	Gneiss	2250	442	GDA94	-29.1872	114.9851	Dongara Saddle
Dongara 06	1559	Gneiss	1540	-19	GDA94	-29.1948	114.9411	Dongara Saddle
Dongara 07	2164	Gneiss	4000	1836	GDA94	-29.3095	115.0301	Dandaragan Trough
Dongara 08	1899	Gneiss	3750	1851	GDA94	-29.2513	115.0239	Dandaragan Trough
Dongara 09	1910	Gneiss	3000	1090	GDA94	-29.224	115.0038	Dongara Saddle

Well name	TD (m)	Probable Basement Lithology	Basement Depth (m)	Depth to basement from TD (m)	DATUM	North (Decimal Degrees)	East (Decimal Degrees)	Sub Basin
Dongara 10	2042	Gneiss	3250	1208	GDA94	-29.239	115.0056	Dongara Saddle
Dongara 11	1835	Gneiss	3750	1915	GDA94	-29.2664	115.0103	Dongara Saddle
Dongara 12	2013	Gneiss	3750	1737	GDA94	-29.2381	115.0227	Dandaragan Trough
Dongara 13	2033	Gneiss	2750	717	GDA94	-29.2128	114.9978	Dongara Saddle
Dongara 14	1918	Gneiss	3250	1332	GDA94	-29.224	115.0191	Dandaragan Trough
Dongara 15	1939	Gneiss	3750	1811	GDA94	-29.2745	115.0187	Dandaragan Trough
Dongara 16	1924	Gneiss	3250	1326	GDA94	-29.2694	114.9943	Dongara Saddle
Dongara 17	1949	Gneiss	4000	2051	GDA94	-29.2849	115.0291	Dandaragan Trough
Dongara 18	1920	Gneiss	4250	2330	GDA94	-29.2748	115.035	Dandaragan Trough
Dongara 19	2179	Gneiss	4500	2321	GDA94	-29.2666	115.0467	Dandaragan Trough
Dongara 20	1939	Gneiss	4000	2061	GDA94	-29.2663	115.0231	Dandaragan Trough
Dongara 21	1889	Gneiss	3500	1611	GDA94	-29.2337	115.0135	Dongara Saddle
Dongara 22	1800	Gneiss	2750	950	GDA94	-29.239	114.9802	Dongara Saddle
Dongara 23	1765	Gneiss	3500	1735	GDA94	-29.261	115.0068	Dongara Saddle
Dongara 24	1808	Gneiss	3500	1692	GDA94	-29.236	115.0182	Dandaragan Trough
Dongara 25	1830	Gneiss	3750	1920	GDA94	-29.2417	115.0262	Dandaragan Trough
Dongara 26	1830	Gneiss	2750	920	GDA94	-29.246	114.9722	Dongara Saddle
Dongara 27	1730	Gneiss	3250	1520	GDA94	-29.2005	115.0233	Dandaragan Trough
Dongara 28	1850	Gneiss	3750	1900	GDA94	-29.2437	115.0153	Dongara Saddle
Dongara 29	1850	Gneiss	3750	1900	GDA94	-29.2527	115.0246	Dandaragan Trough

Well name	TD (m)	Probable Basement Lithology	Basement Depth (m)	Depth to basement from TD (m)	DATUM	North (Decimal Degrees)	East (Decimal Degrees)	Sub Basin
Dongara 30	2030	Gneiss	3750	1720	GDA94	-29.2527	115.0246	Dandaragan Trough
Dongara 34	1850	Gneiss	3500	1650	GDA94	-29.234	115.0197	Dandaragan Trough
East Lake Logue 2	2303	Granite	3500	1197	GDA94	-29.818	115.1562	Dandaragan Trough
Eclipse 1	3660	?	14000	10340	GDA94	-31.4315	115.8783	Dandaragan Trough
Eganu 1	600.46	Granite	4000	3399.54	GDA94	-29.9846	115.8298	Dandaragan Trough
Eremia 1	2550	Gneiss	3500	950	GDA94	-29.309	115.0181	Dandaragan Trough
Eremia 3	2216	Gneiss	3500	1284	GDA94	-29.3106	115.0167	Dandaragan Trough
Felix 1	1013	Granite	4000	2987	GDA94	-32.7443	114.8428	Vlaming Sub-basin
Gage Roads 1	3660.34	Gneiss	10000	6339.66	GDA94	-31.9546	115.3801	Vlaming Sub-basin
Gage Roads 2	2971.8	Gneiss	10000	7028.2	GDA94	-31.9502	115.364	Vlaming Sub-basin
Geelvink 1A	3053	Gneiss	4750	1697	GDA94	-29.0924	114.2996	Abrolhos Sub-basin
Gingin 1	4544	?	14000	9456	GDA94	-31.1431	115.8272	Dandaragan Trough
Gingin 2	4481.78	?	14000	9518.22	GDA94	-31.1722	115.8442	Dandaragan Trough
Greenough 1	445	Gneiss	500	55	GDA94	-28.8528	114.6565	Abrolhos Sub-basin
Gun Island 1	3724.66	Gneiss	4750	1025.34	GDA94	-28.8905	113.8589	Abrolhos Sub-basin
Hakia 1	2763	Gneiss	4250	1487	GDA94	-29.2159	115.096	Dandaragan Trough
Hampton Arms 1	468	Gneiss/Meta seds	363	-105	GDA94	-28.9683	114.7441	Abrolhos Sub-basin
Hill River 2	493.78	Gneiss	3250	2756.22	GDA94	-30.1821	115.2348	Dandaragan Trough
Hill River 4	307.85	Gneiss	3000	2692.15	GDA94	-30.3899	115.2337	Beagle Ridge
Houtman 1	3860	Gneiss	4500	640	GDA94	-28.6641	113.5778	Houtman Sub-basin

Well name	TD (m)	Probable Basement Lithology	Basement Depth (m)	Depth to basement from TD (m)	DATUM	North (Decimal Degrees)	East (Decimal Degrees)	Sub Basin
Hovea 1	2134	Gneiss	4250	2116	GDA94	-29.3168	115.0422	Dandaragan Trough
Hovea 2	2687	Granite	2673	-14	GDA94	-29.3118	115.0431	Dandaragan Trough
Hovea 3	2500	Gneiss	4250	1750	GDA94	-29.318	115.0413	Dandaragan Trough
Hovea 4	2530	Gneiss	4250	1720	GDA94	-29.319	115.0412	Dandaragan Trough
Hovea 5	2105	Gneiss	4250	2145	GDA94	-29.3191	115.0417	Dandaragan Trough
Hovea 6	2126	Gneiss	4250	2124	GDA94	-29.3191	115.0417	Dandaragan Trough
Hovea 7	2245	Gneiss	4250	2005	GDA94	-29.3191	115.0417	Dandaragan Trough
Hovea 9	2102	Gneiss	4250	2148	GDA94	-29.3282	115.0442	Dandaragan Trough
Huntswell 1	1903	Gneiss	3250	1347	GDA94	-29.1166	115.1313	Dandaragan Trough
Illyarrie 1	2608	Gneiss	4000	1392	GDA94	-29.2297	115.0467	Dandaragan Trough
Jingemia 1	2950	Granite	3000	50	GDA94	-29.3395	114.991	Beagle Ridge
Jingemia 2	2781	Granite	3000	219	GDA94	-29.3393	114.9897	Beagle Ridge
Jingemia 3	2625	Granite	3000	375	GDA94	-29.3393	114.9897	Beagle Ridge
Kingia 1	2871	Granite	3500	629	GDA94	-29.3926	115.0288	Dandaragan Trough
Lake Preston 1	4565	Granite	10500	5935	GDA94	-32.9189	115.6623	Bunbury Trough
Leafcutter 1	1330	Granite	1750	420	GDA94	-29.8523	115.0542	Beagle Ridge
Livet 1	1760	Gneiss	3250	1490	GDA94	-27.2747	112.9042	Abrolhos Sub-basin
Lockyer 1	3327	?	5500	2173	GDA94	-29.1848	115.2624	Dandaragan Trough
Marri 1	2594	Gneiss	8250	5656	GDA94	-31.7448	115.3569	Vlaming Sub-basin
Mentelle 1	1510	Granite	1600	90	GDA94	-29.4359	114.8892	Abrolhos Sub-basin

Well name	TD (m)	Probable Basement Lithology	Basement Depth (m)	Depth to basement from TD (m)	DATUM	North (Decimal Degrees)	East (Decimal Degrees)	Sub Basin
Minder Reef 1	1530	Gneiss	8250	6720	GDA94	-31.7214	115.345	Vlaming Sub-basin
Morangie 1	2165	Gneiss	3500	1335	GDA94	-27.3749	112.925	Abrolhos Sub-basin
Mt Horner 02	2056	Gneiss	2750	694	GDA94	-29.1458	115.0778	Dandaragan Trough
Mt Horner 03	1558	Gneiss	2750	1192	GDA94	-29.1285	115.0864	Dandaragan Trough
Mt Horner 04	1815.5	Gneiss	2750	934.5	GDA94	-29.1291	115.0914	Dandaragan Trough
Mt Horner 04A	1265	Gneiss	2750	1485	GDA94	-29.1285	115.0917	Dandaragan Trough
Mt Horner 05	1819	Gneiss	2750	931	GDA94	-29.1255	115.0895	Dandaragan Trough
Mt Horner 05A	1280	Gneiss	2750	1470	GDA94	-29.1257	115.0903	Dandaragan Trough
Mt Horner 06	1850	Gneiss	2750	900	GDA94	-29.1355	115.0917	Dandaragan Trough
Mt Horner 07	1848	Gneiss	2750	902	GDA94	-29.1232	115.0927	Dandaragan Trough
Mt Horner 08	1306	Gneiss	2750	1444	GDA94	-29.1324	115.0931	Dandaragan Trough
Mt Horner 09	1310	Gneiss	2750	1440	GDA94	-29.1269	115.0945	Dandaragan Trough
Mt Horner 10	1450.5	Gneiss	2750	1299.5	GDA94	-29.131	115.0979	Dandaragan Trough
Mt Horner 11	1408	Gneiss	3000	1592	GDA94	-29.146	115.1103	Dandaragan Trough
Mt Horner 12	1805	Gneiss	2750	945	GDA94	-29.1219	115.0845	Dandaragan Trough
Mt Horner 13	1676	Gneiss	2750	1074	GDA94	-29.1179	115.0984	Dandaragan Trough
Mt Horner 14	1803	Gneiss	2750	947	GDA94	-29.1227	115.0887	Dandaragan Trough
Mullaloo 1	2030	Gneiss	7250	5220	GDA94	-31.8663	115.4632	Vlaming Sub-basin
Mullering 1	1666	?	7250	5584	GDA94	-30.6895	115.3264	Dandaragan Trough
Mungarra 1	609.3	Gneiss	1750	1140.7	GDA94	-28.8504	115.1187	Dandaragan Trough

Well name	TD (m)	Probable Basement Lithology	Basement Depth (m)	Depth to basement from TD (m)	DATUM	North (Decimal Degrees)	East (Decimal Degrees)	Sub Basin
Mungarra 5	621.79	Gneiss	2250	1628.21	GDA94	-28.8946	115.1381	Dandaragan Trough
Mungenooka 1	3842	??	7750	3908	GDA94	-29.391	115.2135	Dandaragan Trough
Murrumbah 1	2145	Gneiss	3750	1605	GDA94	-29.1574	115.1797	Dandaragan Trough
Narkarino 1	600	Gneiss	750	150	GDA94	-29.117	114.9013	Dongara Saddle
Parmelia 1	1770	Granite	10000	8230	GDA94	-32.2986	115.0771	Vlaming Sub-basin
Peel 1	3714	Granite	9500	5786	GDA94	-32.2621	115.4468	Vlaming Sub-basin
Pinjarra 1	4572.31	?	10000	5427.69	GDA94	-32.6767	115.7731	Dandaragan Trough
Quinns Rock 1	2209.19	Gneiss	7250	5040.81	GDA94	-31.8024	115.517	Dandaragan Trough
Rakrani 1	1202	Meta seds	1197	-5	GDA94	-29.1702	114.9012	Beagle Ridge
Redback 1	3796	Gneiss	7750	3954	GDA94	-29.4578	115.1621	Dandaragan Trough
Rockingham 1	1563.2	?	8250	6686.8	GDA94	-32.2927	115.8907	Dandaragan Trough
Roe 1	2133.91	Gneiss	10000	7866.09	GDA94	-31.9405	115.3218	Vlaming Sub-basin
Rosslyn 1	1030	Gneiss	2250	1220	GDA94	-29.0687	115.0474	Dandaragan Trough
Rutile 1	2514	Granite	4750	2236	GDA94	-34.0262	115.3555	Bunbury Trough
Sabina River 1	4309	Granite	8200	3891	GDA94	-33.6648	115.4112	Bunbury Trough
Scott River 1	2370	Granite	4250	1880	GDA94	-34.2652	115.337	Bunbury Trough
South Turtle Dove 1B	1830	Gneiss	3750	1920	GDA94	-30.1283	114.6379	Turtle Dove Ridge
Sue 1	3077.5	Gneissic Granite	3054	-23.5	GDA94	-34.0646	115.3193	Bunbury Trough
Sugarloaf 1	3658	Granite	7000	3342	GDA94	-32.9152	115.0562	Vlaming Sub-basin
Tuart 1	1600	Gneiss	10000	8400	GDA94	-31.9502	115.3591	Vlaming Sub-basin

Well name	TD (m)	Probable Basement Lithology	Basement Depth (m)	Depth to basement from TD (m)	DATUM	North (Decimal Degrees)	East (Decimal Degrees)	Sub Basin
Twin Lions 1	1570	Granite	1545	-25	GDA94	-29.3695	114.8865	Beagle Ridge
Vindara 1	1755	Granite	1800	45	GDA94	-29.4981	114.9357	Beagle Ridge
Walyering 1	3643.27	Gneiss	8500	4856.73	GDA94	-30.7146	115.4667	Dandaragan Trough
Walyering 2	4115	Gneiss	8750	4635	GDA94	-30.7021	115.4754	Dandaragan Trough
Walyering 3	4187.34	Gneiss	10000	5812.66	GDA94	-30.7335	115.4956	Dandaragan Trough
Walyering 4	3350	Gneiss	8500	5150	GDA94	-30.7154	115.4706	Dandaragan Trough
Warnbro 1	3660.34	Granite	10000	6339.66	GDA94	-32.2388	115.3487	Vlaming Sub-basin
Wayvanerry 1	2748	Gneiss	4500	1752	GDA94	-29.146	115.2974	Dandaragan Trough
Whicher Range 1	4653.08	Granite	5500	846.92	GDA94	-33.8356	115.3745	Bunbury Trough
Whicher Range 2	4330	Granite	5750	1420	GDA94	-33.8407	115.3839	Bunbury Trough
Whicher Range 3	4496	Granite	6000	1504	GDA94	-33.8708	115.3942	Bunbury Trough
Whicher Range 4	4575	Granite	5500	925	GDA94	-33.8396	115.3685	Bunbury Trough
Whicher Range 5	4307	Granite	5250	943	GDA94	-33.8484	115.3602	Bunbury Trough
Wicherina 1	1685.54	Gneiss	2250	564.46	GDA94	-28.8313	115.242	Dandaragan Trough
Wittecarra 1	2890	Gneiss	4000	1110	GDA94	-27.8426	113.2105	Abrolhos Sub-basin
Wonnerup 1	4727.45	Granite	9500	4772.55	GDA94	-33.6308	115.4727	Bunbury Trough
Woodada 08	2271	Granite	3000	729	GDA94	-29.8618	115.1467	Beagle Ridge
Woodada 09	2350	Granite	3500	1150	GDA94	-29.8827	115.1615	Beagle Ridge
Woodada 10	2340	Granite	2750	410	GDA94	-29.8155	115.1307	Dandaragan Trough
Woodada 11	2191	Granite	3000	809	GDA94	-29.8285	115.1437	Dandaragan Trough

Well name	TD (m)	Probable Basement Lithology	Basement Depth (m)	Depth to basement from TD (m)	DATUM	North (Decimal Degrees)	East (Decimal Degrees)	Sub Basin
Woodada 12	2300	Granite	2750	450	GDA94	-29.8351	115.1299	Beagle Ridge
Woodada 14	2265	Granite	3000	735	GDA94	-29.8345	115.1408	Beagle Ridge
Woodada 15	2260	Granite	3250	990	GDA94	-29.821	115.1475	Dandaragan Trough
Woodada 17	1364	Granite	3000	1636	GDA94	-29.8621	115.1467	Beagle Ridge
Woodada 19	2841	Granite	2840	-1	GDA94	-29.8629	115.1395	Beagle Ridge
Wye 1	766	Gneiss	1750	984	GDA94	-29.1128	114.9911	Dongara Saddle
Xyris 1	2795	Gneiss	5500	2705	GDA94	-29.3072	115.0926	Dandaragan Trough
Yallallie 1	3321	?	14500	11179	GDA94	-30.3433	115.7727	Dandaragan Trough
Yardarino 3	2700	Gneiss	4000	1300	GDA94	-29.2256	115.055	Dandaragan Trough
Yardarino 5	2560	Gneiss	4000	1440	GDA94	-29.2197	115.0605	Dandaragan Trough

Attachment D. Basement lithology and depths for 80 previously studied wells

Well name	TD (m)	Probable Basement Lithology	Basement Depth (m)	Depth to basement from TD (m)	DATUM	North (Decimal Degrees)	East (Decimal Degrees)	Sub Basin
Allanooka 1	1186.6	Gneiss	2000	813.4	GDA94	-29.1425	115.0144	Dongara Saddle
Arramall 1	2250	Granite	2225	-25	GDA94	-29.5898	115.0972	Dandaragan Trough
Arranoo 1	1750	Gneiss	2500	750	GDA94	-29.1387	115.0788	Dandaragan Trough
Arrowsmith 1	3446	Granite	3420	-26	GDA94	-29.6108	115.1186	Dandaragan Trough
Beekeeper 1	3012	Granite	5500	2488	GDA94	-29.7127	115.1866	Dandaragan Trough
Beharra 1	2055.6	Gneiss	2040	-15.6	GDA94	-29.4849	115.014	Beagle Ridge
Beharra 2	1925.1	Gneiss	2000	74.9	GDA94	-29.5154	115.0209	Beagle Ridge
Beharra Springs 1	3700	Granite	7250	3550	GDA94	-29.4641	115.1412	Dandaragan Trough
Beharra Springs 2	3493	Granite	7250	3757	GDA94	-29.478	115.1449	Dandaragan Trough
Beharra Springs 3	3505	Granite	7250	3745	GDA94	-29.4554	115.1409	Dandaragan Trough
Bonniefield 1	1012	Granite	1009	-3	GDA94	-29.1703	114.9145	Beagle Ridge
Bookara 1	282.25	Gneiss	263	-19.25	GDA94	-28.9835	114.7731	Dongara Saddle
Bookara 2	762	Granite	1000	238	GDA94	-29.1663	114.9114	Dongara Saddle
Bookara 3	537.67	Gneiss	475	-62.67	GDA94	-29.1074	114.8903	Dongara Saddle
Conder 1	252.6	Meta seds	229	-23.6	GDA94	-29.044	114.9242	Dandaragan Trough
Connolly 1	478	Meta seds	450	-28	GDA94	-29.0365	114.9531	Dandaragan Trough
Coomallo 1	3520	?	8500	4980	GDA94	-30.2475	115.4174	Dandaragan Trough
Denison 1	2300	Granite	2500	200	GDA94	-29.2244	114.9561	Dongara Saddle
Depot Hill 1	2473	Gneiss	4000	1527	GDA94	-29.1004	115.3264	Dandaragan Trough
Dongara 01	2161.34	Granite	3000	838.66	GDA94	-29.2521	114.9906	Dongara Saddle
Donkey Creek 1	3852.67	?	8500	4647.33	GDA94	-29.6252	115.2917	Dandaragan Trough

Well name	TD (m)	Probable Basement Lithology	Basement Depth (m)	Depth to basement from TD (m)	DATUM	North (Decimal Degrees)	East (Decimal Degrees)	Sub Basin
East Heaton 1	2520	Gneiss	4500	1980	GDA94	-29.1132	115.2512	Dandaragan Trough
East Lake Logue 1	2430	Granite	3500	1070	GDA94	-29.8329	115.1548	Dandaragan Trough
Ejarno 1	2868	Granite	4750	1882	GDA94	-29.3138	115.0773	Dandaragan Trough
Eleven Mile 1	321.8	Meta seds	295	-26.8	GDA94	-29.0763	114.8839	Dongara Saddle
Eneabba 1	4179.42	?	8750	4570.58	GDA94	-29.5693	115.3337	Dandaragan Trough
Erregulla 1	4244.34	Granite	7250	3005.66	GDA94	-29.376	115.3989	Dandaragan Trough
Erregulla 2	3577	Granite	7250	3673	GDA94	-29.374	115.3989	Dandaragan Trough
Eurangoa 1	2276.86	Gneiss	3250	973.14	GDA94	-29.126	115.1392	Dandaragan Trough
Gairdner 1	2172	Gneiss	2250	78	GDA94	-30.0701	115.1472	Beagle Ridge
Georgina 1	1831.7	Granite	2500	668.3	GDA94	-29.1434	115.0749	Dandaragan Trough
Heaton 1	2438.4	Gneiss	4250	1811.6	GDA94	-29.1204	115.2139	Dandaragan Trough
Hill River 3	263.65	Gneiss	2900	2636.35	GDA94	-30.0088	115.1903	Dandaragan Trough
Horner West 1	1451	Gneiss	2000	549	GDA94	-29.1354	115.0443	Dandaragan Trough
Hunt Gully 1	1983	Gneiss	3500	1517	GDA94	-29.0971	115.1535	Dandaragan Trough
Indoon 1	2257	Granite	3000	743	GDA94	-29.8824	115.1527	Beagle Ridge
Jay 1	1295	Gneiss	1500	205	GDA94	-29.0778	115.0579	Dandaragan Trough
Jurien 1	1025.96	Gneiss	978	-47.96	GDA94	-30.1456	115.0483	Beagle Ridge
Leander Reef 1	3234	Granite	4500	1266	GDA94	-29.4384	114.7376	Abrolhos Sub-basin
Mondarra 1	3062.94	Granite	5750	2687.06	GDA94	-29.3004	115.1181	Dandaragan Trough
Mondarra 2	2854	Granite	5500	2646	GDA94	-29.3513	115.1048	Dandaragan Trough
Mondarra 3	2987.04	Granite	6000	3012.96	GDA94	-29.2921	115.1142	Dandaragan Trough

Well name	TD (m)	Probable Basement Lithology	Basement Depth (m)	Depth to basement from TD (m)	DATUM	North (Decimal Degrees)	East (Decimal Degrees)	Sub Basin
Mondarra 4	2895.3	Granite	5500	2604.7	GDA94	-29.319	115.1028	Dandaragan Trough
Mooratara 1	1630	Granite	1750	120	GDA94	-29.2128	114.9103	Beagle Ridge
Mountain Bridge 1	3416	Granite	3500	84	GDA94	-29.6001	115.1154	Dandaragan Trough
Mt Adams 1	3791.1	Granite	7500	3708.9	GDA94	-29.4057	115.1681	Dandaragan Trough
Mt Hill 1	565.4	Gneiss	1500	934.6	GDA94	-29.0679	114.9853	Dandaragan Trough
Mt Horner 01	2252.47	Gneiss	2500	247.53	GDA94	-29.1282	115.0864	Dandaragan Trough
Mungarra 2	612.65	Gneiss	1500	887.35	GDA94	-28.9082	115.0847	Dandaragan Trough
Mungarra 4	643.13	Gneiss	2500	1856.87	GDA94	-28.904	115.267	Dandaragan Trough
Narlingue 1	2130.25	Gneiss	2500	369.75	GDA94	-29.0693	115.1042	Dandaragan Trough
North Erregulla 1	3444.24	Granite	6500	3055.76	GDA94	-29.2443	115.3276	Dandaragan Trough
North Yardanogo 1	2387.1	Granite	6000	3612.9	GDA94	-29.4663	115.1027	Dandaragan Trough
North Yardarino 1	2207	Granite	2190	-17	GDA94	-29.1887	115.0415	Dandaragan Trough
Ocean Hill 1	3840.41	?	9500	5659.59	GDA94	-29.9357	115.3978	Dandaragan Trough
Peron 1	2601	Granite	2577	-24	GDA94	-29.9511	115.1608	Beagle Ridge
Point Louise 1	950	Gneiss	1500	550	GDA94	-30.0389	115.0704	Beagle Ridge
Robb 1	1981	Granite	1972	-9	GDA94	-29.5453	115.0383	Beagle Ridge
South Yardanogo 1	2350	Gneiss	5500	3150	GDA94	-29.4979	115.1045	Dandaragan Trough
Strawberry Hill 1	2903	Granite	5500	2597	GDA94	-29.2535	115.1225	Dandaragan Trough
Tabletop 1	1825	Gneiss	3000	1175	GDA94	-29.0914	115.1216	Dandaragan Trough
Tarantula 1	3317	Granite	7000	3683	GDA94	-29.4224	115.1385	Dandaragan Trough
Warradong 1	3717	Granite	7000	3283	GDA94	-29.3003	115.1727	Dandaragan Trough

Well name	TD (m)	Probable Basement Lithology	Basement Depth (m)	Depth to basement from TD (m)	DATUM	North (Decimal Degrees)	East (Decimal Degrees)	Sub Basin
Warramia 1	1498	?	13500	12002	GDA94	-30.1844	115.7294	Dandaragan Trough
Warro 1	4385	?	13000	8615	GDA94	-30.1672	115.7379	Dandaragan Trough
Warro 2	4854	?	13000	8146	GDA94	-30.1668	115.7356	Dandaragan Trough
Wattle Grove 1	822	Granite	799	-23	GDA94	-29.1429	114.9064	Dongara Saddle
West Erregulla 1	4064.5	Granite	8250	4185.5	GDA94	-29.4258	115.3104	Dandaragan Trough
West White Point 1	2248	Granite	4000	1752	GDA94	-29.3449	115.0412	Dandaragan Trough
West White Point 2	2354.89	Granite	4000	1645.11	GDA94	-29.3788	115.0431	Dandaragan Trough
Woodada 01	2546	Granite	3250	704	GDA94	-29.7946	115.1406	Dandaragan Trough
Woodada 02	2460	Granite	3500	1040	GDA94	-29.7939	115.1535	Dandaragan Trough
Woodada 03	2540	Granite	4000	1460	GDA94	-29.7534	115.1572	Dandaragan Trough
Woodada 04	2271	Granite	3000	729	GDA94	-29.8338	115.1441	Beagle Ridge
Woodada 05	2808	Granite	3500	692	GDA94	-29.7715	115.1411	Dandaragan Trough
Woodada 06	2708	Granite	3000	292	GDA94	-29.8106	115.1419	Dandaragan Trough
Woolmulla 1	2811.48	Gneiss	2773	-38.48	GDA94	-30.0232	115.1942	Dandaragan Trough
Yardarino 1	2596	Granite	3500	904	GDA94	-29.2219	115.055	Dandaragan Trough
Yardarino 2	3075.43	Granite	3100	24.57	GDA94	-29.2043	115.0655	Dandaragan Trough
Yardarino 4	2489.61	Granite	3000	510.39	GDA94	-29.216	115.0494	Dandaragan Trough

Attachment E. Summary of measured rock thermal conductivity data for the Perth Basin

Well	Depth [m]	Sample	Conductivity [W/mK] Harmonic Mean	STDEV Error [W/mK]	Formation	Lithology
Gingin 1	1018.8	DIR001	2.58	0.33	Parmelia Group	sst, medium sand, brown
Gingin 1	2478.2	DIR002	2.30	0.42	Yarragadee Formation	sst, fine sand, dark/light interbedded
Gingin 1	2976.4	DIR003	4.31	0.26	Yarragadee Formation	sst, medium sand, buff
Gingin 1	3468	DIR004	4.55	0.86	Cadda Formation	sst, fine to medium sand
Arrowsmith 1	2679.2	DIR005	2.09	0.06	Kockatea Shale	shale, moderate foliation, dark
Gingin 1	3817.3	DIR006	4.47	0.23	Cattamarra Coal Measures	sst, fine to medium sand, buff
Woolmulla 1	2807.8	DIR007	2.97	0.15	Basement	mica and feldspar bearing meta-sediment, weakly foliated
Hill River 1	112.8	DIR008	3.79	0.18	Cadda Formation	sst, fine to medium sand, trace coarse sand, grey
Quinn's Rock 1	776.3	DIR009	1.71	0.05	Gage Sandstone	shale, poorly sorted, weakly foliated, dark
Quinn's Rock 1	775.7	DIR010	2.20	0.04	Gage Sandstone	shale, poorly sorted, weakly foliated, dark
North Euragulla 1	2800.2	DIR011	3.77	0.24	Lesueur Sandstone	sst, fine sand, buff, with organic bedding, 1-2mm thick
North Euragulla 1	2801	DIR012	1.74	0.21	Lesueur Sandstone	silt, graphitic
Cockburn 1	182.6	DIR013	1.71	0.20	South Perth Shale	sandy shale, weakly consolidated, dark, organic
Cockburn 1	183.3	DIR014	1.72	0.08	South Perth Shale	shale, weakly consolidated, dark, organic?
Sue 1	1770.9	DIR015	1.91	0.16	Willespie Formation	interbedded light/dark sand and silt, organic?
Sue 1	1225.3	DIR016	2.01	0.05	Willespie Formation	sst, medium to fine sand, light brown
Sue 1	1126.4	DIR017	2.80	0.10	Sabina Sandstone	sst, fine to coarse sand, poorly sorted, buff
Sue 1	1128.1	DIR018	2.78	0.13	Sabina Sandstone	sst, fine to coarse sand, poorly sorted
Allanooka 2	1000	DIR019	3.26	0.10	Basement (Palaeozoic gneiss)	gneiss, K-feldspar and quartz bearing
Quinn's Rock 1	397.2	DIR020	2.56	0.18	Leederville Formation	sst, fine to coarse sand, poorly sorted, poorly consolidated
Wicherina 1	804.2	DIR021	3.02	0.14	Irwin River Coal Measures	sst, coarse sand, poorly sorted, grey
Yardarino 1	1490.2	DIR022	2.62	0.44	Eneabba Formation	sst, fine to medium sand, grey
Jurien 1	892.9	DIR023	4.40	0.20	High Cliff Sandstone	sst, medium sand, well consolidated, grey/pink
Bookara 1	537.5	DIR024	3.52	0.22	Basement	gneiss
Sue 1	2890.1	DIR025	4.15	0.28	Woodynook Sandstone	sst, medium sand, grey
Sue 1	2774.4	DIR026	1.30	0.11	Rosabrook Coal Measures	shale/silt, organic, black
Sue 1	2773.8	DIR027	4.11	0.08	Rosabrook Coal Measures	sst, medium sand, buff
Sue 1	3076.7	DIR028	3.04	0.13	Basement	gneiss, Ca-feldspar/biotite/quartz bearing
Jurien 1	278.1	DIR029	2.25	0.21	Beekeeper Formation	siltstone containing coral/shell fragments
Jurien 1	547.7	DIR030	2.08	0.57	Carynginia Formation	shale/silt, black
Arrowsmith 1	2826.4	DIR031	1.54	0.15	Carynginia Formation	shale, dark
Sue 1	2316	DIR032	3.03	0.06	Redgate Coal Measures	sst, med to coarse sand, grey
Sue 1	2590.8	DIR033	3.98	0.24	Ashbrook Sandstone	sst, medium to coarse sand, grey
Goonderoo 1	26.6	DIR034	7.01	0.11	Noondyne Chert	chert, grey
Yardarino 1	1344.2	DIR035	3.20	0.18	Cattamarra Coal Measures	sst, fine to medium sand, buff
Wicherina 1	1103.8	DIR036	1.45	0.15	Holmwood Shale	shale/silt, dark

Attachment F – Recalculated conductivities for the northern Perth Basin from lithology mixing methods

Northern Perth Basin			
Formation	**Average Conductivity**	**Average Error**	**Notes**
Alluvium/Tertiary sediments	**1.42**	**0.14**	Data taken from Beardsmore's 1999 conductivity paper on the Carnarvon Basin
Coolyena Group	**1.13**	**0.08**	Data based on mean average of all similar Upper Cretaceous lithologies from Beardsmore's 1999 paper on the Carnarvon Basin
Parmelia Group	**2.58**	**0.33**	Data calculated from sample DIR001
Yarragadee Formation	**3.54**	**0.30**	Data calculated from sample DIR002 [25% of the representative lithology] and DIR003 [75% of the representative lithology]
Cadda Formation	**4.14**	**0.52**	Data calculated from sample DIR004 [50% of the representative lithology] and DIR008 [50% of the representative lithology]
Cattamarra Coal Measures	**3.73**	**0.20**	Data calculated from sample DIR006 [50% of the representative lithology] and DIR035 [50% of the representative lithology]
Eneabba Formation	**2.62**	**0.44**	Data calculated from sample DIR022
Lesueur Sandstone	**3.56**	**0.23**	Data calculated from sample DIR011 [95% of the representative lithology] and DIR012 [5% of the representative lithology]
Woodada Formation	**2.79**	**0.12**	Data taken as Sabina Sandstone, representative lithology in the southern Perth Basin
Kockatea Shale	**2.09**	**0.06**	Data calculated from sample DIR005
Dongara/Wagina Sandstone	**2.92**	**0.56**	Data based on mean average of all Palaeozoic sandstones from Beardsmore's 1999 paper on the Carnarvon Basin
Beekeeper Formation	**2.25**	**0.21**	Data calculated from sample DIR029
Carynginia Formation	**1.77**	**0.36**	Data calculated from sample DIR030 [50% of the representative lithology] and DIR031 [50% of the representative lithology]
Irwin River Coal Measures	**3.02**	**0.50**	Data calculated from sample DIR029 [STDEV error was 0.13577 but increased to 0.5 as unsure as to how representative of the lithology the sample tested was]
High Cliff Sandstone	**4.40**	**0.20**	Data calculated from sample DIR023
Holmwood Shale	**1.45**	**0.15**	Data calculated from sample DIR036 [Only one conductivity reading was achievable due to poor sample quality; STDEV taken as 10%]
Nangetty Formation	**2.75**	**0.42**	Data based on Lyons Group from Beardsmore's 1999 paper on the Carnarvon Basin, regarded as a proxy lithology
Wicherina Beds	**2.75**	**0.42**	Data based on Lyons Group from Beardsmore's 1999 paper on the Carnarvon Basin, regarded as a proxy lithology
Basement	**3.20**	**0.40**	Data based on similar basement datasets in Western Australia

Attachment G – Recalculated conductivities for the southern Perth Basin from lithology mixing methods

Southern Perth Basin			
Formation	**Average Conductivity**	**Average Error**	**Notes**
Alluvium/Tertiary sediments	**1.42**	**0.14**	Data taken from Beardsmore's 1999 conductivity paper on the Carnarvon Basin
Coolyena Group	**1.13**	**0.08**	Data based on mean average of all similar Upper Cretaceous lithologies from Beardsmore's 1999 paper on the Carnarvon Basin
Warnbro Group	**2.56**	**0.18**	Data taken as Leederville Formation where the Warnbro Group has not been delineated into formations
Leederville Formation	**2.56**	**0.18**	Data calculated from sample DIR020
South Perth Shale	**1.71**	**0.14**	Data calculated from sample DIR013 [50% of the representative lithology] and DIR014 [50% of the representative lithology]
Gage Sandstone	**1.93**	**0.04**	Data calculated from sample DIR009 [50% of the representative lithology] and DIR010 [50% of the representative lithology]
Bunbury Basalt	**1.80**	**0.30**	Data based on generic conductivity value of basalt
Parmelia Group	**2.58**	**0.33**	Data calculated from sample DIR001
Yarragadee Formation	**3.54**	**0.30**	Data calculated from sample DIR002 [25% of the representative lithology] and DIR003 [75% of the representative lithology]
Cadda Formation	**4.14**	**0.52**	Data calculated from sample DIR004 [50% of the representative lithology] and DIR008 [50% of the representative lithology]
Cattamarra Coal Measures	**3.73**	**0.20**	Data calculated from sample DIR006 [50% of the representative lithology] and DIR035 [50% of the representative lithology]
Eneabba Formation	**2.62**	**0.44**	Data calculated from sample DIR022
Lesueur Sandstone	**3.56**	**0.23**	Data calculated from sample DIR011 [95% of the representative lithology] and DIR012 [5% of the representative lithology]
Sabina Sandstone	**2.79**	**0.12**	Data calculated from sample DIR017 [50% of the representative lithology] and DIR018 [50% of the representative lithology]
Willespie Formation	**1.96**	**0.11**	Data calculated from sample DIR015 [50% of the representative lithology] and DIR016 [50% of the representative lithology]
Redgate Coal Measures	**2.87**	**0.09**	Data taken as Rosabrook Coal Measures
Ashbrook Sandstone	**3.98**	**0.24**	Data calculated from sample DIR033
Rosabrook Coal Measures	**2.87**	**0.09**	Data calculated from sample DIR026 [20% of the representative lithology] and DIR027 [80% of the representative lithology]
Woodynook Sandstone	**4.15**	**0.28**	Data calculated from sample DIR025
Mosswood Formation	**2.75**	**0.42**	Data based on Lyons Group from Beardsmore's 1999 paper on the Carnarvon Basin, regarded as a proxy lithology
Basement	**3.20**	**0.40**	Data based on similar basement datasets in Western Australia

Attachment H – Calculated heat generation for granite samples in and adjacent to the Perth Basin, WA.

State	region	province	easting	northing	utm_zone	latitude	longitude	datum	lithname	description	K2O	K (ppm) by atomic mass	U	Th	Ave. assumed density (g/cm3)	Heat Gen. from isotopic abundance ratios (µWm3)
WA	Perth Region	Perth Basin	312180.9	6664010	50	-30.14078	115.0501	GDA94	granite	medium to	8.08	67075.77	1.5	10	2.68	1.72
WA	Yilgarn Region	Darling Range Ba	420666.1	6472440	50	-31.88107	116.1612	GDA94	granite	medium to	4.27	35447.22	16	35	2.68	6.95
WA	Yilgarn Region	Western Gneiss	566013.9	6303502	50	-33.40578	117.7099	GDA94	granite	variably-ba	0.409	3395.30	1.7	1	2.68	0.54
WA	Yilgarn Region	Western Gneiss	584190.9	6288416	50	-33.54056	117.9068	GDA94	granite	pink-grey n	1.459	12111.83	2.9	8	2.68	1.43
WA	Yilgarn Region	Western Gneiss	557681.9	6316407	50	-33.28986	117.6195	GDA94	granite	enclave-be	1.72	14278.51	4.2	58	2.68	5.31
WA	Yilgarn Region	Western Gneiss	522781.9	6334593	50	-33.12713	117.2442	GDA94	granite	equigranula	2.335	19383.90	5.7	31	2.68	3.84
WA	Yilgarn Region	Western Gneiss	557672.9	6316319	50	-33.29066	117.6194	GDA94	granite	sparsely Kf	2.6	21583.79	4.3	27	2.68	3.22
WA	Yilgarn Region	Western Gneiss	537288.9	6312392	50	-33.32697	117.4007	GDA94	granite	white-grye	2.93	24323.27	3.5	39	2.68	3.88
WA	Yilgarn Region	Western Gneiss	534799.9	6355008	50	-32.94266	117.3723	GDA94	granite	equigr to sp	2.944	24439.49	7.7	31	2.68	4.41
WA	Yilgarn Region	Western Gneiss	573374.9	6314425	50	-33.30678	117.7882	GDA94	granite	lineated me	3.011	24995.69	1.4	18	2.68	1.87
WA	Yilgarn Region	Western Gneiss	452300.2	6395489	50	-32.57702	116.4918	GDA94	granite	biotite (chlo	3.22	26730.69	5	13	2.68	2.46
WA	Yilgarn Region	Western Gneiss	487692.1	6345410	50	-33.02973	116.8682	GDA94	granite	altered (chl	3.46	28723.04	4.5	33	2.68	3.76
WA	Yilgarn Region	Western Gneiss	440705.8	6422842	50	-32.32972	116.37	GDA94	granite	biotite gran	3.6	29885.24	7	20	2.68	3.50
WA	Yilgarn Region	Western Gneiss	533297.6	6330577	50	-33.16308	117.3571	GDA94	granite	biotite (chlo	3.6	29885.24	5	24	2.68	3.27
WA	Yilgarn Region	Western Gneiss	510209.9	6355355	50	-32.94004	117.1092	GDA94	granite	hornfelsed	3.665	30424.84	1.3	11	2.68	1.40
WA	Yilgarn Region	Western Gneiss	527977.9	6320232	50	-33.25654	117.3004	GDA94	granite	mod feld po	3.714	30831.61	8.6	49	2.68	5.97
WA	Yilgarn Region	Western Gneiss	527951.9	6320673	50	-33.25256	117.3001	GDA94	granite	sparsely fe	3.781	31387.81	6.5	38	2.68	4.66
WA	Yilgarn Region	Western Gneiss	557554.9	6316291	50	-33.29091	117.6181	GDA94	granite	pink-grey n	3.879	32201.35	7.2	52	2.68	5.83
WA	Yilgarn Region	Western Gneiss	456662.4	6472811	50	-31.87967	116.5418	GDA94	granite	biotite (chlo	3.9	32375.68	11	28	2.68	5.13
WA	Yilgarn Region	Western Gneiss	512320	6439645	50	-32.17964	117.1307	GDA94	granite	hornblende	4.04	33537.88	2	9	2.68	1.47
WA	Yilgarn Region	Western Gneiss	522781.9	6334589	50	-33.12716	117.2442	GDA94	granite	variably fel	4.108	34102.38	4.6	57	2.68	5.53
WA	Yilgarn Region	Western Gneiss	548097.9	6502659	50	-31.61019	117.5071	GDA94	granite	altered biot	4.3	35696.26	12	113	2.68	11.41
WA	Yilgarn Region	Western Gneiss	535049.9	6354815	50	-32.94439	117.375	GDA94	granite	sparsely fe	4.34	36028.32	70.9	26	2.68	20.54
WA	Yilgarn Region	Western Gneiss	510388.9	6355025	50	-32.94301	117.1111	GDA94	granite	med-cs ser	4.417	36667.53	3.4	63	2.68	5.67
WA	Yilgarn Region	Western Gneiss	526453.2	6292725	50	-33.50469	117.2848	GDA94	granite	biotite (chlo	4.7	39016.85	12	122	2.68	12.07
WA	Yilgarn Region	Western Gneiss	585468.9	6310812	50	-33.33848	117.9184	GDA94	granite	grey med-c	4.817	39988.12	4.5	36	2.68	4.08
WA	Yilgarn Region	Western Gneiss	584167.9	6288399	50	-33.54071	117.9066	GDA94	granite	grey-white	4.873	40453.00	4.6	11	2.68	2.35
WA	Yilgarn Region	Western Gneiss	557575.9	6316347	50	-33.29041	117.6184	GDA94	granite	grey-pink n	5.03	41756.33	7.5	50	2.68	5.86
WA	Yilgarn Region	Western Gneiss	405152.8	6349272	50	-32.99083	115.9848	GDA94	granite	porphyritic	5.23	43416.62	6.5	59	2.68	6.25
WA	Yilgarn Region	Western Gneiss	584189.9	6288394	50	-33.54076	117.9068	GDA94	granite	foliated mo	5.384	44695.04	1.6	5	2.68	1.19
WA	Yilgarn Region	Western Gneiss	421533.3	6362034	50	-32.87702	116.1612	GDA94	granite	porphyritic	8.56	71060.47	9	29	2.68	5.04
WA	Yilgarn Region	Yilgarn Craton	750891.1	6968901	50	-27.38017	119.5369	GDA94	granite	sample tak	3.15	26149.59	9	36	2.68	5.12
WA	Yilgarn Region	Yilgarn Craton	725391	6997401	50	-27.12752	119.274	GDA94	granite	external gr	4.1	34035.97	4	28	2.68	3.33
WA	Yilgarn Region	Yilgarn Craton	665390.7	6900151	50	-28.0136	118.6822	GDA94	granite	external gr	4.38	36360.38	5.5	44	2.68	4.87
WA	Yilgarn Region	Yilgarn Craton	731641	6991651	50	-27.17835	119.3381	GDA94	granite	aplitic inter	4.48	37190.53	6	15	2.68	2.96

Attachment I – Calculated heat generation for gneiss samples in and adjacent to the Perth Basin, WA.

State	region	province	easting	northing	utm_zone	latitude	longitude	datum	lithname	description	K2O	K (ppm) by atomic mass	U	Th	Ave. assumed density (g/cm3)	Heat Gen. from isotopic abundance ratios (μWm3)
WA	Perth Region	Perth Basi	338264.4	6251601	50	-33.86352	115.2515	GDA94	gneiss	garnet-biot	5.16	42835.52	1	5	2.65	1.00
WA	Perth Region	Perth Basi	330386.4	6262667	50	-33.76252	115.1685	GDA94	gneiss	garnet-biot	5.61	46571.17	9.5	107	2.65	10.32
WA	Perth Region	Perth Basi	309590.4	6769750	50	-29.18663	115.0417	GDA94	gneiss	medium to	6.18	51303.00	6	37	2.65	4.59
WA	Northampton R	Northhamp	278642.8	6921335	50	-27.81436	114.7528	GDA94	gneiss	medium-gr	1.89	15689.75	2.5	16	2.65	1.90
WA	Northampton R	Northhamp	271009.8	6926736	50	-27.76436	114.6764	GDA94	gneiss	garnet-silln	4.83	40096.04	4	43	2.65	4.39
WA	Yilgarn Region	Western G	473047	7120561	50	-26.03366	116.7306	GDA94	gneiss	quartz-rich	1.43	11871.08	0.5	1	2.65	0.31
WA	Yilgarn Region	Western G	371577.1	6783399	50	-29.07128	115.6806	GDA94	gneiss	medium to	2.02	16768.94	3.5	9	2.65	1.68
WA	Yilgarn Region	Western G	537084.9	6312638	50	-33.32476	117.3985	GDA94	gneiss	medium-gr	2.781	23086.35	3.1	11	2.65	1.78
WA	Yilgarn Region	Western G	573349.9	6314410	50	-33.30692	117.7879	GDA94	gneiss	variably de	2.977	24713.44	1	13	2.65	1.39
WA	Yilgarn Region	Western G	622807.5	6384080	50	-32.67413	118.3098	GDA94	gneiss	biotite-qua	3.22	26730.69	2.5	6	2.65	1.31
WA	Yilgarn Region	Western G	573619.9	6314405	50	-33.30695	117.7908	GDA94	gneiss	variably de	3.362	27909.50	5.6	19	2.65	3.02
WA	Yilgarn Region	Western G	416803.3	6511662	50	-31.52697	116.1237	GDA94	gneiss	fine-graine	3.63	30134.29	0.5	23	2.65	2.01
WA	Yilgarn Region	Western G	564114.9	6302145	50	-33.41813	117.6896	GDA94	gneiss	variably de	3.847	31935.70	6.1	16	2.65	2.97
WA	Yilgarn Region	Western G	491781.8	7143201	50	-25.82945	116.918	GDA94	gneiss	biotite ada	4.07	33786.93	0.5	22	2.65	1.97
WA	Yilgarn Region	Western G	592395.9	6310876	50	-33.33733	117.9929	GDA94	gneiss	white med-	4.464	37057.70	1.2	15	2.65	1.70
WA	Yilgarn Region	Western G	371577.1	6783399	50	-29.07128	115.6806	GDA94	gneiss	granitic au	5.22	43333.60	1.5	6	2.65	1.20
WA	Yilgarn Region	Western G	495130.4	7139969	50	-25.85865	116.9514	GDA94	gneiss	slightly rec	5.42	44993.89	0.5	41	2.65	3.40
WA	Yilgarn Region	Yilgarn Cra	438503	7067668	50	-26.51017	116.3828	GDA94	gneiss	medium gr	0.02	166.03	18.27	33	2.65	6.98
WA	Yilgarn Region	Yilgarn Cra	360848.4	6764189	50	-29.24348	115.568	GDA94	gneiss	biotite-qua	1.86	15440.71	4	25	2.65	2.91
WA	Yilgarn Region	Yilgarn Cra	300717.5	7102977	51	-26.17887	121.0059	GDA94	gneiss	not weathe	2.17	18014.16	0.6	1	2.65	0.39
WA	Yilgarn Region	Yilgarn Cra	737141.1	6904150	50	-27.96666	119.4107	GDA94	gneiss	melanocrat	4.84	40179.05	3	50	2.65	4.63

Attachment J – Calculated heat generation for sedimentary rock samples in and adjacent to the Perth Basin, WA**.**

State	region	province	easting	northing	utm_zone	latitude	longitude	datum	lithname	description	K2O	**K (ppm) by atomic mass**	U	Th	**Ave. assumed density (g/cm3)**	**Heat Gen. from isotopic abundance ratios (μWm3)**
WA	Yilgarn Region	Yilgarn Craton	636470.6	7064141	50	-26.53677	118.3699	GDA94	sandstone	base of Bo	1.7	14112.48	1	6	2.5	0.76
WA	Yilgarn Region	Yilgarn Craton	296067.2	6965517	51	-27.41852	120.9371	GDA94	sediment, u	chalcopyrit	0.34	2822.50	2.5	3	2.5	0.83
WA	Yilgarn Region	Yilgarn Craton	296277.2	6965537	51	-27.41837	120.9392	GDA94	sediment, u	andesite tu	1.56	12950.27	1	5	2.5	0.68
WA	Yilgarn Region	Yilgarn Craton	294937.2	6967857	51	-27.39724	120.9261	GDA94	sediment, u	, |Old Lithg	2.58	21417.76	2.5	6	2.5	1.19
WA	Yilgarn Region	Yilgarn Craton	753391.1	7000401	50	-27.0956	119.5556	GDA94	sediment, unknown ori		2.58	21417.76	3.5	14	2.5	1.95
WA	Yilgarn Region	Yilgarn Craton	296177.2	6965487	51	-27.41881	120.9382	GDA94	sediment, u	fine grained	3.71	30798.40	7	18	2.5	3.15
WA	Yilgarn Region	Yilgarn Craton	294937.2	6967857	51	-27.39724	120.9261	GDA94	sediment, u	, |Old Lithg	4.37	36277.37	3	8	2.5	1.57
WA	Yilgarn Region	Yilgarn Craton	296277.2	6965537	51	-27.41837	120.9392	GDA94	sediment, u	, |Old Lithg	6.39	53046.31	6	21	2.5	3.30

Attachment K – Modelled heat flow and one standard deviation uncertainty ('error'). 'Reliability' based on quality of temperature data.

Well name	Basement Depth	Possible Basement Type	OFF_SHORE_Y_N	LATITUDE (Decimal Degrees)	LONGITUDE (Decimal Degrees)	DST temps Y/N	Horner temps Y/N	Overal reliability (high, low, med)	Heat flow (mW/m2)	error
Alexandra Bridge 1	2250	Granite	N	-34.156305	115.2615556	n	n	low	62	1.9
Apium 1	5000	Granite	N	-29.315961	115.0710306	N	Y	High	99	5.2
Araucaria 1	10000	Granite	Y	-32.211412	115.3623237	n	y	mod-high	69	1.7
Arradale 1	4250	Unknown	N	-29.107654	115.3131222	N	N	Low-Mod	86	4.6
Arranoo South 1	2750	Gneiss	N	-29.155366	115.0851691	n	n	Low-Mod	98	3.6
Badaminna 1	10500	Unknown	N	-31.340721	115.6686951	n	n	low	83	3.6
Barberton 1	3750	Unknown	N	-30.818018	115.9736591	n	n	low	63	2.4
Barragoon 1	6000	Unknown	N	-31.359871	115.587374	n	n	low	65	2.2
Batavia 1	4500	Gneiss	Y	-28.898403	114.261554	n	n	Low-Mod	73	3.5
Beharra Springs North	7250	PreC Gneiss	N	-29.434178	115.1453806	n	n	low-mod	93	6.6
Beharra Springs South	7500	PreC Gneiss	N	-29.503583	115.1528667	n	n	mod	95	6.4
Blackwood 1	4500	Granite	N	-34.147418	115.357075	n	n	low-mod	60	1.7
Bootine 1	14000	Unknown	N	-31.176503	115.8270201	y	y	high	80	3.4
Bouvard 1	10000	Granite	Y	-32.522683	115.254418	n	n	low	60	1.4
Bullsbrook 1	14000	Unknown	N	-31.476684	115.8426303	n	n	low-mod	68	2.8
Bunjong 1	2250	Gneiss	N	-29.232172	114.9369722	n	n	Low-Mod	80	2.6
Cadda 1	3000	Gneiss	N	-30.336273	115.2147926	n	n	low	77	2.6
Canebreak 1	4000	Granite	N	-34.282624	115.4697632	n	n	low	55	1.5
Casuarinas 1	2500	Gneiss	N	-28.925427	115.1533857	n	y	Mod	90	4
Cataby 1	7250	Gneiss	N	-30.686395	115.3336049	y	n	mod	96	2.7
Central Yardarino 1	3250	Gneiss	N	-29.199241	115.0513492	n	y	Mod-High	96	3.1
Challenger 1	8000	Granite	Y	-32.421236	115.0143496	n	n	low	68	1.7
Chapman Hill 1	2500	Granite	N	-33.771103	115.3150276	n	n	low	70	2.3
Charlotte 1	7500	Gneiss	Y	-31.808783	115.4503696	n	n	low-mod	68	1.6
Cliff Head 1	1480	Granite	Y	-29.464592	114.8697472	n	n	mod	110	3.8
Cliff Head 13H	2800	Granite	Y	-29.450097	114.8700417	n	n	low	72	2.4
Cliff Head 3	1500	Granite	Y	-29.436545	114.8640158	n	n	low	48	1.6
Cliff Head 4	1594	Granite	Y	-29.446059	114.8673556	n	y	mod	94	3.2
Cliff Head 9H	2800	Granite	Y	-29.450097	114.8700278	n	n	low	75	2.5
Cockburn 1	9500	Granite	N	-32.133783	115.7381513	n	n	mod	76	3.1
Cypress Hill 1	13500	Unknown	N	-30.462976	115.8131819	n	n	low-mod	91	3.2
Dandaragan 1	14500	Unknown	N	-30.596425	115.8088665	n	n	low	57	2.2
Dongara 02	2750	Gneiss	N	-29.248431	114.9781396	n	n	Low-Mod	99	3.4
Dongara 03	3500	Gneiss	N	-29.25782	115.0031396	cannot be modelled due to inadequate temperature				
Dongara 04	2750	Gneiss	N	-29.229459	114.9835006	n	n	mod	93	4.4
Dongara 05	2250	Gneiss	N	-29.187236	114.9850554	y	n	low-mod	99	3.3
Dongara 06	1750	Gneiss	N	-29.194793	114.9410554	n	n	Low-Mod	102	3.5
Dongara 07	4000	Gneiss	N	-29.309515	115.0300568	n	n	low	85	4.5
Dongara 08	3750	Gneiss	N	-29.251264	115.0238896	n	n	Mod	97	5.5
Dongara 09	3000	Gneiss	N	-29.224042	115.0037505	n	n	Low-Mod	99	4.2
Dongara 10	3250	Gneiss	N	-29.238959	115.0056118	n	n	Low-Mod	97	4
Dongara 11	3750	Gneiss	N	-29.266431	115.0102509	n	n	mod	96	4.9

Dongara 12	3750	Gneiss	N	-29.238097	115.0227228	n	n	low	108	5.9
Dongara 13	2750	Gneiss	N	-29.212792	114.9977781	n	n	low	99	3.5
Dongara 14	3250	Gneiss	N	-29.224014	115.0190559	n	n	low	100	4.3
Dongara 15	3750	Gneiss	N	-29.274542	115.0186676	n	n	low	96	5.6
Dongara 16	3250	Gneiss	N	-29.269404	114.994251	n	n	low	109	4.7
Dongara 17	4000	Gneiss	N	-29.284931	115.0290565	n	n	low	98	5.4
Dongara 18	4250	Gneiss	N	-29.274764	115.0350286	n	n	low	95	5.6
Dongara 19	4500	Gneiss	N	-29.266597	115.046723	n	n	low	90	5.4
Dongara 20	4000	Gneiss	N	-29.266264	115.0230564	n	n	mof	96	5.3
Dongara 21	3500	Gneiss	N	-29.233709	115.0134728	n	y	Mod-High	107	5.1
Dongara 22	2750	Gneiss	N	-29.238959	114.9801673	n	n	Low-Mod	95	3.3
Dongara 23	3500	Gneiss	N	-29.260987	115.0068341	n	n	low-mod	112	5.5
Dongara 24	3500	Gneiss	N	-29.235959	115.0182228	y	y	high	108	5.2
Dongara 25	3750	Gneiss	N	-29.241736	115.0262228	y	n	Mod-High	109	5.6
Dongara 26	2750	Gneiss	N	-29.245965	114.9722452	n	y	Mod	116	4
Dongara 27	3250	Gneiss	N	-29.200464	115.0233445	n	y	Mod-High	109	5.1
Dongara 28	3750	Gneiss	N	-29.2437	115.015334	n	y	mod	95	4.8
Dongara 29	3750	Gneiss	N	-29.252703	115.0245646	n	n	low-mod	95	4.7
Dongara 30	3750	Gneiss	N	-29.252703	115.0245655	n	n	low	87	4
Dongara 34	3500	Gneiss	N	-29.233996	115.0196631	Data not provided by DoIR - confidential				
East Lake Logue 2	3500	Granite	N	-29.817969	115.1561745	n	n	low-mod	94	3.2
Eclipse 1	14000	Unknown	N	-31.431535	115.8782583	n	n	low	65	2.7
Eganu 1	4000	Granite	N	-29.984596	115.8297869	n	n	low	104	3.3
Eremia 1	3500	Gneiss	N	-29.308986	115.0180833	n	n	low-mod	97	3.5
Eremia 3	3500	Gneiss	N	-29.31063	115.0166528	n	n	low-mod	95	3.7
Felix 1	4000	Granite	Y	-32.744331	114.8428262	n	n	low	60	1.6
Gage Roads 1	10000	Gneiss	Y	-31.954618	115.3800927	y	n	low	63	1.4
Gage Roads 2	10000	Gneiss	Y	-31.950173	115.3639814	n	n	mod	67	1.8
Geelvink 1A	4750	Gneiss	Y	-29.092415	114.2996046	n	n	mod	64	3.2
Gingin 1	14000	Unknown	N	-31.143056	115.8272222	y	n	mod-high	88	3.5
Gingin 2	14000	Unknown	N	-31.172222	115.8441667	n	n	mod	83	3.4
Greenough 1	500	Gneiss	N	-28.852806	114.6564862	n	n	low	88	3.2
Gun Island 1	4750	Gneiss	N	-28.890468	113.8589427	n	n	low	73	2.3
Hakia 1	4250	Gneiss	N	-29.215931	115.0960339	n	y	low	44	2
Hampton Arms 1	500	Gneiss	N	-28.96828	114.7441398	n	n	low	94	3.5
Hill River 2	3250	Gneiss	N	-30.182105	115.23479	n	n	low	45	1.7
Hill River 4	3000	Gneiss	N	-30.389884	115.2336811	cannot be modelled due to inadequate temperature				
Houtman 1	4500	Gneiss	Y	-28.664052	113.5778219	n	n	low	60	2
Hovea 1	4250	Gneiss	N	-29.316833	115.0422111	y	n	Mod-High	100	5.3
Hovea 2	4250	Gneiss	N	-29.311756	115.0431028	n	y	Mod-High	98	3.6
Hovea 3	4250	Gneiss	N	-29.317978	115.041275	n	n	low	98	5.2
Hovea 4	4250	Gneiss	N	-29.318985	115.0411722	n	n	low	79	4.1
Hovea 5	4250	Gneiss	N	-29.319103	115.0416667	n	n	low-mod	100	5.3

Hovea 6	4250	Gneiss	N	-29.319103	115.0416667	n	n	low-mod	94	5
Hovea 7	4250	Gneiss	N	-29.319103	115.0416667	n	n	low	71	3.7
Hovea 9	4250	Gneiss	N	-29.328212	115.0441667	n	n	low	99	5.2
Huntswell 1	3250	Gneiss	N	-29.116608	115.1312943	n	n	low-mod	95	3.9
Illyarrie 1	4000	Gneiss	N	-29.22969	115.0466834	n	n	low-mod	90	3.9
Jingemia 1	3000	Granite	N	-29.339486	114.9909917	n	n	low	95	3.2
Jingemia 2	3000	Granite	N	-29.339272	114.9897139	n	n	low-mod	62	2.4
Jingemia 3	3000	Granite	N	-29.339272	114.9897139	n	n	low-mod	68	2.5
Kingia 1	3500	Granite	N	-29.392564	115.0287944	Data not provided by DoIR - confidential				
Lake Preston 1	10500	Granite	N	-32.91892	115.6622893	n	n	low-mod	61	2
Leafcutter 1	1750	Granite	N	-29.852342	115.0542361	Data not provided by DoIR - confidential				
Livet 1	3250	Gneiss	Y	-27.274673	112.904198	n	n	low-mod	79	3.2
Lockyer 1	5500	Unknown	N	-29.184812	115.262405	y	y	High	90	4.8
Marri 1	8250	Gneiss	Y	-31.744765	115.3568604	n	n	low	62	1.9
Mentelle 1	1600	Granite	Y	-29.435918	114.8891722	n	n	low-mod	109	3.7
Minder Reef 1	8250	Gneiss	Y	-31.721364	115.3449516	n	y	low-mod	62	1.8
Morangie 1	3500	Gneiss	Y	-27.374871	112.9249611	Data not provided by DoIR - confidential				
Mt Horner 02	2750	Gneiss	N	-29.1458	115.0778	n	n	low	84	2.9
Mt Horner 03	2750	Gneiss	N	-29.128463	115.0864438	y	y	mod	94	3.4
Mt Horner 04	2750	Gneiss	N	-29.129063	115.0914438	y	y	mod	95	3.2
Mt Horner 04A	2750	Gneiss	N	-29.128463	115.0917438	n	y	mod	97	3.4
Mt Horner 05	2750	Gneiss	N	-29.125463	115.0895437	n	y	mod	96	3.4
Mt Horner 05A	2750	Gneiss	N	-29.125663	115.0903437	n	y	low	120	4.3
Mt Horner 06	2750	Gneiss	N	-29.135463	115.0917216	n	y	low-mod	97	3.6
Mt Horner 07	2750	Gneiss	N	-29.123196	115.0927437	y	y	Mod-High	96	3.2
Mt Horner 08	2750	Gneiss	N	-29.132363	115.0931105	y	y	Mod-High	99	3.4
Mt Horner 09	2750	Gneiss	N	-29.126863	115.0944993	y	n	mod	99	3.4
Mt Horner 10	2750	Gneiss	N	-29.131002	115.0978546	n	y	mod-low	97	3.3
Mt Horner 11	3000	Gneiss	N	-29.145963	115.110344	n	y	mod-low	101	3.6
Mt Horner 12	2750	Gneiss	N	-29.121863	115.0845437	n	n	low	105	3.9
Mt Horner 13	2750	Gneiss	N	-29.117929	115.098388	n	n	low	104	3.8
Mt Horner 14	2750	Gneiss	N	-29.122702	115.0887104	n	n	low	102	3.6
Mullaloo 1	7250	Gneiss	Y	-31.866286	115.4631996	n	y	mod-low	69	2.2
Mullering 1	7250	Unknown	N	-30.689472	115.3263616	n	n	low	101	3.4
Mungarra 1	1750	Gneiss	N	-28.850427	115.1186627	n	n	low	89	4.3
Mungarra 5	2250	Gneiss	N	-28.894594	115.1381077	n	n	low	90	4.2
Mungenooka 1	7750	Unknown	N	-29.390988	115.2135018	n	y	mod-low	97	5.4

Murrumbah 1	3750	Gneiss	N	-29.157429	115.1797494	n	n	low	95	3.7
Narkarino 1	750	Gneiss	N	-29.116984	114.9013131	n	n	low	30	1
Parmelia 1	10000	Granite	Y	-32.298608	115.0771118	n	n	low	42	1.1
Peel 1	9500	Granite	Y	-32.262066	115.4467651	n	n	low	47	1.3
Pinjarra 1	10000	Unknown	N	-32.6767	115.7730556	n	n	low	78	2.2
Quinns Rock 1	7250	Gneiss	Y	-31.802392	115.5170357	n	n	low	62	1.8
Rakrani 1	1197	Meta seds	N	-29.170209	114.9011942	n	n	low	101	3.4
Redback 1	7750	Gneiss	N	-29.457792	115.1620861	n	y	mod	91	6.5
Rockingham 1	8250	Unknown	N	-32.292672	115.8907366	n	y	mod	77	3.5
Roe 1	10000	Gneiss	Y	-31.940451	115.3217588	n	n	low	80	2.2
Rosslyn 1	2250	Gneiss	N	-29.068674	115.0474142	n	n	low	108	3.6
Rutile 1	4750	Granite	N	-34.026158	115.3554778	n	y	mod	58	1.6
Sabina River 1	8200	Granite	N	-33.664829	115.4112064	n	n	low	59	1.7
Scott River 1	4250	Granite	N	-34.265203	115.3370424	n	n	low	65	1.9
South Turtle Dove 1B	3750	Gneiss	Y	-30.128301	114.6379014	n	n	low	57	2.4
Sue 1	3500	Granite	N	-34.064639	115.3192958	n	n	low	55	1.6
Sugarloaf 1	7000	Granite	Y	-32.91519	115.0562224	n	n	low	55	1.8
Tuart 1	10000	Gneiss	Y	-31.950171	115.3590925	n	y	mod	69	1.8
Twin Lions 1	1545	Granite	Y	-29.369536	114.88645	n	y	mod	110	3.8
Vindara 1	1800	Granite	Y	-29.498117	114.9357111	n	y	mod	107	3.6
Walyering 1	8500	Gneiss	N	-30.714606	115.4667421	y	n	mod	77	2.2
Walyering 2	8750	Gneiss	N	-30.702106	115.475353	n	n	low	82	2.5
Walyering 3	10000	Gneiss	N	-30.733495	115.4956312	y	n	mod	69	2.4
Walyering 4	8500	Gneiss	N	-30.715367	115.4705694	n	n	low	78	2.2
Warnbro 1	10000	Granite	Y	-32.23879	115.3487102	n	n	low	50	1.2
Wayvanerry 1	4500	Unknown	N	-29.145961	115.2973736	n	y	mod	90	3.5
Whicher Range 1	5500	Granite	N	-33.835553	115.3744518	n	n	low	58	1.7
Whicher Range 2	5750	Granite	N	-33.84065	115.3839049	y	n	mod	54	1.4
Whicher Range 3	6000	Granite	N	-33.870839	115.3942354	y	y	mod-high	59	1.5
Whicher Range 4	5500	Granite	N	-33.839555	115.3684709	n	n	low	45	1.2
Whicher Range 5	5250	Granite	N	-33.848431	115.3602306	Data not provided by DoIR - confidential				
Wicherina 1	2250	Gneiss	N	-28.831259	115.2419955	n	n	low	70	3
Wittecarra 1	4000	Gneiss	Y	-27.842564	113.2105215	n	y	mod	73	2.5
Wonnerup 1	9500	Granite	N	-33.630772	115.4726617	y	n	mod	55	1.6
Woodada 08	3000	Granite	N	-29.861831	115.1467285	n	y	mod	102	3.5
Woodada 09	3500	Granite	N	-29.882669	115.1614531	y	n	mod	82	3
Woodada 10	2750	Granite	N	-29.815469	115.1306522	n	y	mod	96	2.9
Woodada 11	3000	Granite	N	-29.828469	115.1436524	n	n	low	86	3
Woodada 12	2750	Granite	N	-29.835111	115.129858	n	n	low	95	3.2
Woodada 14	3000	Granite	N	-29.83453	115.1408024	n	n	low	90	2.9
Woodada 15	3250	Granite	N	-29.820963	115.1475233	n	n	low	93	3.2
Woodada 17	3000	Granite	N	-29.862084	115.1466694	n	n	low	81	2.6
Woodada 19	2840	Granite	N	-29.862853	115.1395278	n	n	low	95	3.1
Wye 1	1750	Gneiss	N	-29.112795	114.9911096	n	y	mod-low	140	5.6
Xyris 1	5500	Gneiss	N	-29.307161	115.0926167	Data not provided by DoIR - confidential				
Yallallie 1	14500	Unknown	N	-30.343294	115.7726801	n	n	low	62	2.6
Yardarino 3	4000	Gneiss	N	-29.225556	115.055	n	n	low	96	4.3
Yardarino 5	4000	Gneiss	N	-29.219713	115.0605114	n	y	Mod	103	4.6

Attachment L – Inferred isotherm depths and basement temperatures for wells in the Perth Basin, WA. 'Reliability' based on quality of temperature data.

Well name	Overall reliability (high, low, med)	Heat flow (mW/m^2)	error	Temp at 5,000 m [°C]	Temp Error 5,000 m [°C]	Possible Fm	Depth to 100°C [m]	Possible Fm	Depth to 150°C [m]	Possible Fm	Depth to 200°C [m]	Possible Fm
Alexandra Bridge 1	low	62	1.9	133	9	Pz	3367	Pz	5890	Pz	8375	Pz
Apium 1	High	99	5.2	244	13	Wicherina Beds	2225	Woodada Formation	3361	Holmwood Shale	3925	Nangetty Formation
Araucaria 1	mod-high	69	1.7	159	7	Yarragadee Formation	2607	Parmelia Group	4628	Yarragadee Formation	6595	Lesueur Sandstone
Arradale 1	Low-Mod	86	4.6	207	14	Pz	2465	Holmwood Shale	3255	Nangetty Formation	4795	Pz
Arranoo South 1	Low-Mod	98	3.6	213	15	Pz	2135	Nangetty Formation	3406	Pz	4680	Pz
Badaminna 1	low	83	3.6	163	5	Woodada Formation	3055	Leseuer Sandstone	4270	Kockatea Shale	5965	Kockatea Shale
Barberton 1	low	63	2.4	129	7	Pz	3400	Lesueur Sandstone	5908	Pz	8065	Pz
Barragoon 1	low	65	2.2	159	6	Irwin River Coal Measures	3205	Leseuer Sandstone	4840	Carynginia Formation	6190	Pz
Batavia 1	Low-Mod	73	3.5	174	8	Pz	2840	Carynginia Formation	3860	Nangetty Formation	5870	Pz
Beharra Springs North 1	low-mod	93	6.6	226	10	Pz	2661	Eneabba Formation	3687	Irwin River Coal Measures	4646	Holmwood Shale
Beharra Springs South 1	mod	95	6.4	227	10	Holmwood Shale	2746	Eneabba Formation	3695	Carynginia Formation	4830	Holmwood Shale
Blackwood 1	low-mod	60	1.7	132	3	Pz	3585	Ashbrook Sandstone	5840	Pz	8280	Pz
Bootine 1	high	80	3.4	148	7	Eneabba Formation	3281	Cattamarra Coal Measures	5012	Eneabba Formation	6710	Leseuer Sandstone

Well name	Overall reliability (high, low, med)	Heat flow (mW/m^2)	error	Temp at 5,000 m [°C]	Temp Error 5,000 m [°C]	Possible Fm	Depth to 100°C [m]	Possible Fm	Depth to 150°C [m]	Possible Fm	Depth to 200°C [m]	Possible Fm
Bouvard 1	low	60	1.4	137	7	Cattamarra Coal Measures	3180	Yarragadee Formation	5665	Lesueur Sandstone	7550	Willespie Formation
Bullsbrook 1	low-mod	68	2.8	128	6	Cattamarra Coal Measures	3790	Cattamarra Coal Measures	5560	Leseuer Sandstone	7560	Kockatea Shale
Bunjong 1	Low-Mod	80	2.6	189	13	Pz	2032	Nangetty Formation	3750	Pz	5360	Pz
Cadda 1	low	77	2.6	175	11	Pz	2430	Irwin River Coal Measures	4145	Pz	5820	Pz
Canebreak 1	low	55	1.5	126	4	Pz	3815	Mosswood Formation	6270	Pz	9340	Pz
Casuarinas 1	Mod	90	4	207	19	Pz	2015	Nangetty Formation	3420	Pz	4825	Pz
Cataby 1	mod	96	2.7	232	24	Leseuer Sandstone	2540	Eneabba Formation	3685	Leseuer Sandstone	4750	Leseuer Sandstone
Central Yardarino 1	Mod-High	96	3.1	229	13	Pz	2120	Kockatea Shale	2965	Nangetty Formation	4290	Pz
Challenger 1	low	68	1.7	148	8	Cattamarra Coal Measures	2945	Yarragadee Formation	5075	Cattamarra Coal Measures	6870	Willespie Formation
Chapman Hill 1	low	70	2.3	134	8	Pz	3656	Pz	5720	Pz	8050	Pz
Charlotte 1	low-mod	68	1.6	149	8	Cattamarra Coal Measures	2910	Yarragadee Formation	4090	Cattamarra Coal Measures	6590	Willespie Formation
Cliff Head 1	mod	110	3.8	248	19	Pz	1800	Holmwood Shale	2760	Pz	3920	Pz
Cliff Head 13H	low	72	2.4	158	12	Pz	2600	Pz	4640	Pz	6870	Pz
Cliff Head 3	low	48	1.6	93	7	Pz	5650	Pz	NA	NA	NA	NA

Well name	Overall reliability (high, low, med)	Heat flow (mW/m^2)	error	Temp at 5,000 m [°C]	Temp Error 5,000 m [°C]	Possible Fm	Depth to 100°C [m]	Possible Fm	Depth to 150°C [m]	Possible Fm	Depth to 200°C [m]	Possible Fm
Cliff Head 4	mod	94	3.2	213	16	Pz	1910	Holmwood Shale	3220	Pz	4628	Pz
Cliff Head 9H	low	75	2.5	165	13	Pz	2440	Pz	4400	Pz	6460	Pz
Cockburn 1	mod	76	3.1	146	5	Woodada Formation	3345	Eneabba Formation	4755	Woodada Formation	5040	Kockatea Shale
Cypress Hill 1	low-mod	91	3.2	183	10	Cattamarra Coal Measures	2055	Yarragadee Formation	3245	Yarragadee Formation	5565	Cattamarra Coal Measures
Dandaragan 1	low	57	2.2	116	7	Cattamarra Coal Measures	4051	Yarragadee Formation	6550	Lesueur Sandstone	8775	Kockatea Shale
Dongara 02	Low-Mod	99	3.4	221	16	Pz	2210	High Cliff Sandstone	3230	Pz	4480	Pz
Dongara 03	cannot be modelled due to inadequate temperature data											
Dongara 04	mod	93	4.4	217	14	Pz	2201	Holmwood Shale	2885	Nangetty Formation	4560	Pz
Dongara 05	low-mod	99	3.3	209	16	Pz	2080	Nangetty Formation	3000	Pz	4775	Pz
Dongara 06	Low-Mod	102	3.5	211	18	Pz	2140	Pz	3470	Pz	4730	Pz
Dongara 07	low	85	4.5	198	12	Pz	2380	Irwin River Coal Measures	3245	Nangetty Formation	5070	Pz
Dongara 08	Mod	97	5.5	220	17	Pz	2200	Holmwood Shale	2875	Nangetty Formation	4525	Pz
Dongara 09	Low-Mod	99	4.2	218	16	Pz	2100	Nangetty Formation	2785	Nangetty Formation	4572	Pz
Dongara 10	Low-Mod	97	4	217	15	Pz	2250	Holmwood Shale	3290	Pz	4590	Pz
Dongara 11	mod	96	4.9	225	16	Pz	2230	Holmwood Shale	2890	Nangetty Formation	4390	Pz

Well name	Overall reliability (high, low, med)	Heat flow (mW/m^2)	error	Temp at 5,000 m [°C]	Temp Error 5,000 m [°C]	Possible Fm	Depth to 100°C [m]	Possible Fm	Depth to 150°C [m]	Possible Fm	Depth to 200°C [m]	Possible Fm
Dongara 12	low	108	5.9	251	19	Pz	2090	Holmwood Shale	2677	Nangetty Formation	3908	Pz
Dongara 13	low	99	3.5	211	15	Pz	2183	Nangetty Formation	3461	Pz	4738	Pz
Dongara 14	low	100	4.3	223	16	Pz	2190	Holmwood Shale	3230	Nangetty Formation	4457	Pz
Dongara 15	low	96	5.6	216	17	Pz	2190	Holmwood Shale	2893	Nangetty Formation	4599	Pz
Dongara 16	low	109	4.7	242	18	Pz	2092	High Cliff Sandstone	2740	Nangetty Formation	4115	Pz
Dongara 17	low	98	5.4	231	15	Pz	2317	Holmwood Shale	2911	Nangetty Formation	4244	Pz
Dongara 18	low	95	5.6	228	16	Pz	2410	Holmwood Shale	2977	Nangetty Formation	4315	Pz
Dongara 19	low	90	5.4	218	13	Pz	2528	Holmwood Shale	3168	Nangetty Formation	4530	Pz
Dongara 20	mof	96	5.3	227	15	Pz	2422	Holmwood Shale	2936	Nangetty Formation	4305	Pz
Dongara 21	Mod-High	107	5.1	248	17	Pz	2110	Holmwood Shale	2691	Nangetty Formation	3979	Pz
Dongara 22	Low-Mod	95	3.3	208	14	Pz	2160	Holmwood Shale	3471	Pz	4788	Pz
Dongara 23	low-mod	112	5.5	261	18	Pz	2035	Holmwood Shale	2579	Nangetty Formation	3739	Pz
Dongara 24	high	108	5.2	251	17	Pz	2031	Holmwood Shale	2648	Nangetty Formation	3874	Pz
Dongara 25	Mod-High	109	5.6	257	19	Pz	2055	Holmwood Shale	2668	Nangetty Formation	3808	Pz
Dongara 26	Mod	116	4	255	18	Pz	2031	Holmwood Shale	2829	Pz	3898	Pz
Dongara 27	Mod-High	109	5.1	248	19	Pz	1995	Holmwood Shale	2595	Nangetty Formation	3498	Pz

Well name	Overall reliability (high, low, med)	Heat flow (mW/m^2)	error	Temp at 5,000 m [°C]	Temp Error 5,000 m [°C]	Possible Fm	Depth to 100°C [m]	Possible Fm	Depth to 150°C [m]	Possible Fm	Depth to 200°C [m]	Possible Fm
Dongara 28	mod	95	4.8	230	16	pz	2110	Holmwood Shale	2809	Nangetty Formation	4273	Pz
Dongara 29	low-mod	95	4.7	230	16	Pz	2130	Holmwood Shale	2839	Nangetty Formation	4276	Pz
Dongara 30	low	87	4	209	13	Pz	2448	Holmwood Shale	3069	Nangetty Formation	4744	Pz
Dongara 34	Data not provided by DoIR - confidential											
East Lake Logue 2	low-mod	94	3.2	222	11	Pz	2160	Kockatea Shale	3178	Irwin River Coal Measures	4420	Pz
Eclipse 1	low	65	2.7	132	5	Eneabba Formation	3660	Catamarra Coal Measures	5510	Leseuer Sandstone	7590	Kockatea Shale
Eganu 1	low	104	3.3	250	12	Pz	1991	Kockatea Shale	2926	Holmwood Shale	3808	Pz
Eremia 1	low-mod	97	3.5	210	11	Pz	2229	Dongara Sandstone	2931	Nangetty Formation	4769	Pz
Eremia 3	low-mod	95	3.7	213	12	Pz	2295	Caryngình Formation	3136	Nangetty Formation	4700	Pz
Felix 1	low	60	1.6	144	5	Pz	3060	Redgate Coal Measures	5278	Pz	7710	Pz
Gage Roads 1	low	63	1.4	152	6	Yarragadee Formation	2580	Yarragadee Formation	4900	Yarragadee Formation	7065	Sabina Sandstone
Gage Roads 2	mod	67	1.8	157	6	Yarragadee Formation	2661	Jervois Sandstone	4728	Yarragadee Formation	6771	Lesueur Sandstone
Geelvink 1A	mod	64	3.2	155	7	Pz	3338	Holmwood Shale	4798	Pz	6760	Pz
Gingin 1	mod-high	88	3.5	175	7	Catamarra Coal Measures	2900	Yarragadee Formation	4399	Cattamarra Coal Measures	5814	Leseuer Sandstone

Well name	Overall reliability (high, low, med)	Heat flow (mW/m^2)	error	Temp at 5,000 m [°C]	Temp Error 5,000 m [°C]	Possible Fm	Depth to 100°C [m]	Possible Fm	Depth to 150°C [m]	Possible Fm	Depth to 200°C [m]	Possible Fm
Gingin 2	mod	83	3.4	147	9	Catamarra Coal Measures	2985	Yarragadee Formation	4919	Catamarra Coal Measures	6271	Woodada Formation
Greenough 1	low	88	3.2	177	17	Pz	2591	Pz	4243	Pz	5735	Pz
Gun Island 1	low	73	2.3	184	5	Pz	2868	Eneabba Formation	4651	Holmwood Shale	5545	Pz
Hakia 1	low	44	2	104	5	Pz	4749	pz	8076	Pz	cannot be modelled	
Hampton Arms 1	low	94	3.5	191	19	Pz	2345	Pz	3837	Pz	5250	Pz
Hill River 2	low	45	1.7	92	5	Pz		Cannot be modelled		Cannot be modelled		
Hill River 4	cannot be modelled due to inadequate temperature data											
Houtman 1	low	60	2	153	5	Pz	2780	Yarragadee Formation	4825	Pz	6999	Pz
Hovea 1	Mod-High	100	5.3	242	13	Pz	2140	Caryngingia Formation	2974	Nangetty Formation	5179	Pz
Hovea 2	Mod-High	98	3.6	214	16	Pz	2149	Caryngingia Formation	3371	Pz	4649	Pz
Hovea 3	low	98	5.2	234	12	Pz	2171	Caryngingia Formation	3049	Nangetty Formation	4212	Nangetty Formation
Hovea 4	low	79	4.1	193	10	Pz	2498	Caryngninia Formation	3506	Nangetty Formation	5206	Pz
Hovea 5	low-mod	100	5.3	244	13	Pz	2100	Dongara Sandstone	2955	High Cliff Sandstone	3619	Nangetty Formation
Hovea 6	low-mod	94	5	228	12	Pz	2245	Caryngninia Formation	3101	Nangetty Formation	4305	Pz
Hovea 7	low	71	3.7	173	8	Pz	2968	Holmwood Shale	3729	Nangetty Formation	5919	Pz
Hovea 9	low	99	5.2	239	12	Pz	2130	Caryngingia Formation	3001	Nangetty Formation	4090	Nangetty Formation

Well name	Overall reliability (high, low, med)	Heat flow (mW/m^2)	error	Temp at 5,000 m [°C]	Temp Error 5,000 m [°C]	Possible Fm	Depth to 100°C [m]	Possible Fm	Depth to 150°C [m]	Possible Fm	Depth to 200°C [m]	Possible Fm
Huntswell 1	low-mod	95	3.9	205	14	Pz	2335	Holmwood Shale	3578	Pz	4879	Pz
Illyarrie 1	low-mod	90	3.9	206	11	Pz	2477	Caryngínia Formation	3338	Nangetty Formation	4845	Pz
Jingemia 1	low	95	3.2	200	12	Pz	2380	Kockatea Shale	3660	Pz	4502	Pz
Jingemia 2	low-mod	62	2.4	159	9	Pz	2585	Kockatea Shale	4570	Pz	6970	Pz
Jingemia 3	low-mod	68	2.5	175	10	Pz	2300	Kockatea Shale	4010	Pz	6039	Pz
Kingia 1	Data not provided by DoIR - confidential											
Lake Preston 1	low-mod	61	2	141	6	Willespie Formation	3859	Sabina Sandstone	5399	Willespie Formation	6720	Willespie Formation
Leafcutter 1	Data not provided by DoIR - confidential											
Livet 1	low-mod	79	3.2	186	11	Pz	2330	Holmwood Shale	3779	Pz	5451	Pz
Lockyer 1	High	90	4.8	222	12	Wicherina Beds	2849	Eneabba Formation	4131	Holmwood Shale	4689	Nangetty Formation
Marri 1	low	62	1.9	145	6	Cattamarra Coal Measures	2880	Yarragadee Formation	5249	Cattamarra Coal Measures	7228	Willespie Formation
Mentelle 1	low-mod	109	3.7	223	18	Pz	1765	Pz	3229	Pz	4446	Pz
Minder Reef 1	low-mod	62	1.8	136	7	Cattamarra Coal Measures	2963	Yarragadee Formation	5714	Lesueur Sandstone	6290	Willespie Formation
Morangie 1	Data not provided by DoIR - confidential											
Mt Horner 02	low	84	2.9	186	13	Pz	2313	Nangetty Formation	3891	Pz	5406	Pz
Mt Horner 03	mod	94	3.4	207	15	Pz	2189	Holmwood Shale	2990	Pz	4817	Pz
Mt Horner 04	mod	95	3.2	134	5	Pz	2298	Holmwood Shale	3439	Pz	4758	Pz

Well name	Overall reliability (high, low, med)	Heat flow (mW/m^2)	error	Temp at 5,000 m [°C]	Temp Error 5,000 m [°C]	Possible Fm	Depth to 100°C [m]	Possible Fm	Depth to 150°C [m]	Possible Fm	Depth to 200°C [m]	Possible Fm
Mt Horner 04A	mod	97	3.4	210	14	Pz	2230	Holmwood Shale	3463	Pz	4749	Pz
Mt Horner 05	mod	96	3.4	205	15	Pz	2280	Holmwood Shale	3559	Pz	4864	Pz
Mt Horner 05A	low	120	4.3	265	19	Pz	1842	High Cliff Sandstone	2289	Nangetty Formation	3751	Pz
Mt Horner 06	low-mod	97	3.6	210	15	Pz	2180	Holmwood Shale	3456	Pz	4747	Pz
Mt Horner 07	Mod-High	96	3.2	209	14	Pz	2355	Holmwood Shale	3459	Pz	4763	Pz
Mt Horner 08	Mod-High	99	3.4	215	15	Pz	2205	Holmwood Shale	3384	Pz	4640	Pz
Mt Horner 09	mod	99	3.4	215	15	Pz	2236	Holmwood Shale	3384	Pz	4642	Pz
Mt Horner 10	mod-low	97	3.3	210	14	Pz	2265	Holmwood Shale	3463	Pz	4750	Pz
Mt Horner 11	mod-low	101	3.6	223	14	Pz	2161	High Cliff Sandstone	3245	Pz	4467	Pz
Mt Horner 12	low	105	3.9	225	16	Pz	2180	Nangetty Formation	3287	Pz	4465	Pz
Mt Horner 13	low	104	3.8	221	17	Pz	2165	Holmwood Shale	3405	Pz	4025	Pz
Mt Horner 14	low	102	3.6	216	16	Pz	2240	Holmwood Shale	3464	Pz	4678	Pz
Mullaloo 1	mod-low	69	2.2	151	7	Yarragadee Formation	2873	Yarragadee Formation	4968	Yarragadee Formation	6754	Willespie Formation
Mullering 1	low	101	3.4	196	9	Leseuer Sandstone	2487	Eneabba Formation	3840	Leseuer Sandstone	5091	Woodada Formation
Mungarra 1	low	89	4.3	169	18	Pz	2613	Pz	4423	Pz	6005	Pz
Mungarra 5	low	90	4.2	204	19	Pz	2010	Nangetty Formation	3490	Pz	4915	Pz
Mungenooka 1	mod-low	97	5.4	220	7	Holmwood Shale	2625	Eneabba Formation	3715	Dongarra Sandstone	4739	Holmwood Shale

Well name	Overall reliability (high, low, med)	Heat flow (mW/m²)	error	Temp at 5,000 m [°C]	Temp Error 5,000 m [°C]	Possible Fm	Depth to 100°C [m]	Possible Fm	Depth to 150°C [m]	Possible Fm	Depth to 200°C [m]	Possible Fm
Murrumbah 1	low	95	3.7	217	12	pz	2385	Irwin River Coal Measures	3357	Nangetty Formation	4587	pz
Narkarino 1	low	30	1		Cannot be modelled		Cannot be modelled			Cannot be modelled		
Parmelia 1	low	42	1.1	113	6	Yarragadee Formation	4075	yarragadee Formation	7445	Willespie Formation	9750	Mosswood Formation
Peel 1	low	47	1.3	132	6	Yarragadee Formation	3120	Jervoise Sandstone	6050	Yarragadee Formation	8465	Willespie Formation
Pinjarra 1	low	78	2.2	152	4	Willespie Formation	3405	Lesueur Sandstone	4955	Willespie Formation	5990	Willespie Formation
Quinns Rock 1	low	62	1.8	136	7	Cattamarra Coal Measures	3250	yarragadee Formation	5627	Sabina Sandstone	7210	Mosswood Formation
Rakrani 1	low	101	3.4	213	19	pz	2178	pz	3478	Pz	4790	Pz
Redback 1	mod	91	6.5	220	9	Holmwood Shale	2555	Eneabba Formation	3685	Kockatea Shale	4715	Holmwood Shale
Rockingham 1	mod	77	3.5	165	4	Kockatea Shale	3270	Leseuer Sandstone	4708	Kockatea Shale	5727	Carynginia Formation
Roe 1	low	80	2.2	174	11	Cattamarra Coal Measures	2245	Yarragadee Formation	4096	Yarragadee Formation	5960	Lesueur Sandstone
Rosslyn 1	low	108	3.6	243	18	Pz	1862	Holmwood Shale	2915	Pz	4065	Pz
Rutile 1	mod	58	1.6	133	4	pz	3505	Redgate Coal Measures	5790	Pz	8280	Pz
Sabina River 1	low	59	1.7	126	3	Willespie Formation	4190	Willespie Formation	5701	Willespie Formation	7682	Mosswood Formation
Scott River 1	low	65	1.9	144	5	Pz	3190	Ashbrook Sandstone	5320	Pz	7392	Pz

Well name	Overall reliability (high, low, med)	Heat flow (mW/m^2)	error	Temp at 5,000 m [°C]	Temp Error 5,000 m [°C]	Possible Fm	Depth to 100°C [m]	Possible Fm	Depth to 150°C [m]	Possible Fm	Depth to 200°C [m]	Possible Fm
South Turtle Dove 1B	low	57	2.4	153	8	Pz	2745	Holmwood Shale	4880	Pz	7200	Pz
Sue 1	low	55	1.6	123	6	Pz	3765	Pz	6620	Pz	10300	Pz
Sugarloaf 1	low	55	1.8	126	6	Cattamarra Coal Measures	3570	Yarragadee Formation	6155	Willespie Formation	8230	Pz
Tuart 1	mod	69	1.8	152	7	Cattamarra Coal Measures	2795	Yarragadee Formation	4900	Cattamarra Coal Measures	6795	Sabina Sandstone
Twin Lions 1	mod	110	3.8	217	20	pz	2130	Pz	3385	Pz	4605	Pz
Vindara 1	mod	107	3.6	220	18	Pz	2019	Pz	3290	Pz	4515	Pz
Walyering 1	mod	77	2.2	143	7	Woodada Formation	3400	cattamarra Coal Measures	5206	Kockatea Shale	6312	Kockatea Shale
Walyering 2	low	82	2.5	152	7	Woodada Formation	3190	cattamarra Coal Measures	4945	Leseuer Sandstone	6046	Kockatea Shale
Walyering 3	mod	69	2.4	129	6	Eneabba Formation	3800	cattamarra Coal Measures	5720	Kockatea Shale	6954	Kockatea Shale
Walyering 4	low	78	2.2	145	7	Woodada Formation	3340	cattamarra Coal Measures	5143	woodada formation	6245	Kockatea Shale
Warnbro 1	low	50	1.2	148	4	Yarragadee Formation	2415	Jervoise Sandstone	5640	Yarragadee Formation	7771	Sabina Sandstone
Wayvanerry 1	mod	90	3.5	215	8	pz	2655	Kockatea Shale	3668	Holmwood Shale	4621	pz
Whicher Range 1	low	58	1.7	122	3	Rosabrook Coal Measures	4191	Willespie Fm	6205	pz	8625	pz

Well name	Overall reliability (high, low, med)	Heat flow (mW/m^2)	error	Temp at 5,000 m [°C]	Temp Error 5,000 m [°C]	Possible Fm	Depth to 100°C [m]	Possible Fm	Depth to 150°C [m]	Possible Fm	Depth to 200°C [m]	Possible Fm
Whicher Range 2	mod	54	1.4	116	3	ashbrook sandstone	4380	Redgate Coal Measures	6610	pz	9310	pz
Whicher Range 3	mod-high	59	1.5	124	3	Redgate	4250	Willespie Fm	6090	Mosswood Fm	9010	Pz
Whicher Range 4	low	45	1.2	97	2	Rosabrook Coal Measures	5220	Mosswood Fm	8500	Pz	14250	Pz
Whicher Range 5	Data not provided by DoIR - confidential											
Wicherina 1	low	70	3	160	13	Pz	2650	Pz	4610	Pz	6525	Pz
Wittecarra 1	mod	73	2.5	172	7	Pz	2819	Carynginia Formation	4250	Pz	5975	Pz
Wonnerup 1	mod	55	1.6	115	3	Willespie Formation	4510	Willespie Formation	6070	Redgate Coal Measures	8030	Woodynook Sandstone
Woodada 08	mod	102	3.5	237	15	Pz	1941	Kockatea Shale	2947	Holmwood Shale	4114	Pz
Woodada 09	mod	82	3	199	11	Pz	2286	Carynginia Formation	3495	Pz	5030	Pz
Woodada 10	mod	96	2.9	210	13	Pz	2197	Kockatea Shale	3385	Pz	4725	Pz
Woodada 11	low	86	3	195	11	Pz	2300	Carynginia Formation	3680	Pz	5214	Pz
Woodada 12	low	95	3.2	218	16	Pz	2051	Kockatea Shale	3175	Pz	4516	Pz
Woodada 14	low	90	2.9	201	12	Pz	2274	Carynginia Formation	3548	Pz	4980	Pz
Woodada 15	low	93	3.2	211	14	Pz	2195	Beekeeper	3324	Pz	4765	Pz
Woodada 17	low	81	2.6	184	10	Pz	2378	Carynginia Formation	3890	Pz	5510	Pz

Well name	Overall reliability (high, low, med)	Heat flow (mW/m^2)	error	Temp at 5,000 m [°C]	Temp Error 5,000 m [°C]	Possible Fm	Depth to 100°C [m]	Possible Fm	Depth to 150°C [m]	Possible Fm	Depth to 200°C [m]	Possible Fm
Woodada 19	low	95	3.1	215	14	Pz	2151	Kockatea Shale	3321	Pz	4674	Pz
Wye 1	mod-low	140	5.6	320	32	Pz	1340	Nangetty Formation	2223	Pz	3103	Pz
Xyris 1	Data not provided by DoIR - confidential											
Yallallie 1	low	62	2.6	124	7	Cadda Fm	3833	Yarragadee Formation	6258	Cattamarra Coal Measures	8270	Lesueur Sandstone
Yardarino 3	low	96	4.3	223	12	Pz	2313	Dongara Sandstone	3256	Nangetty Formation	4476	Pz
Yardarino 5	Mod	103	4.6	238	13	Pz	2223	Kockatea Shale	3101	Nangetty Formation	4153	Pz

* Yellow highlight indicates isotherm depth is modelled to a known formation top as described in the DoIR Formation Top database

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Appendix 1

Thermal conductivity of core samples DIR001–DIR036

An appendix to the report - Geothermal Energy Potential in Selected Areas of Western Australia (Perth Basin); prepared for the Department of Industry and Resources, Western Australia.

27-7-2008

Executive summary

The Western Australian Department of Industry & Resources commissioned Hot Dry Rocks Pty Ltd (HDRPL) to measure the thermal conductivity of 36 core specimens obtained in mid June, 2008. Measurements were made on the 36 specimens using a steady state divided bar apparatus calibrated for the range 1.4–9.8 W/mK. Up to three samples were prepared from each specimen to investigate variation in thermal conductivity over short distance scales and to determine mean conductivity and uncertainty. All values were measured at a standard temperature of 30°C. The uncertainty for individual samples is from ± 4.0% to >10%

HDRPL considers the following points to be important:

- Results are variable from good conductors falling in the range of 4.0 to 7.0 W/mK, to the range typical for good thermal insulators 1.3–2.0 W/mK.
- While the specimens were chosen to represent the cored geological sections from which they came, there is no guarantee that the sections themselves are typical of the overall geological formations.
- It is to be expected that the thermal conductivity of a given formation will vary from place to place if the porosity of the formation varies.
- Thermal conductivity of rocks is sensitive to temperature. This should be kept in mind when developing models of in situ thermal conductivity.

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1.0 Introduction

Thermal conductivity is the physical property that controls the rate at which heat energy flows through a material in a given thermal gradient. In the S.I. system of units, it is measured in watts per metre-Kelvin (W/mK). In the Earth, thermal conductivity controls the rate at which temperature increases with depth for a given heat flow. The thermal conductivity distribution within a section of crust must be known in order to calculate crustal heat flow from temperature gradient data, or to predict temperature distribution from a given heat flow. This report describes the results of laboratory thermal conductivity measurements on a series of drill core samples from the Perth Basin.

WA Department of Industry and Resources commissioned Hot Dry Rocks Pty Ltd (HDRPL) to undertake this study. HDRPL collected 36 core specimens[1] from the wells Gingin1, Allanooka 1, Jurien 1, Woolmulla 1, Hill River 1, Quinn's Rock 1, North Euragulla 1, Cockburn 1, Sue 1, Wicherina 1, Yardarino 1, Bookara 1, Arrowsmith 1, and Goonderoo 1 in June 2008 (Table 1). Thermal conductivity measurements were made on all of these specimens using a steady state divided bar apparatus calibrated for the range 1.4–9.8 W/mK.

Thermal conductivity is sensitive to temperature (e.g. Vosteen and Schellschmidt, 2003[2]), in general decreasing as temperature increases. The measurements contained in this report were made within ±2°C of 30°C.

[1] In this report the word "specimen" refers to a raw piece of rock delivered to HDRPL, while "sample" refers to part of a specimen prepared for conductivity measurement. In general, three samples are prepared from each specimen.
[2] **Vosteen, H.-D. and Schellschmidt, R.** (2003). Influence of temperature on thermal conductivity, thermal capacity and thermal diffusivity for different types of rock. *Physics and Chemistry of the Earth*, 28, 499–509.

Table 1. Specimens presented for thermal conductivity measurement.

Specimen	Well Name	Depth
DIR 001	Gingin 1	1018.8 m
DIR 002	Gingin 1	2478.2 m
DIR 003	Gingin 1	2976.4 m
DIR 004	Gingin 1	3468.0 m
DIR 005	Arrowsmith 1	2679.2 m
DIR 006	Gingin 1	3817.3 m
DIR 007	Woolmulla 1	2807.8 m
DIR 008	Hill River 1	112.8 m
DIR 009	Quinn's Rock 1	776.3 m
DIR 010	Quinn's Rock 1	775.7 m
DIR 011	North Euragulla 1	2800.2 m
DIR 012	North Euragulla 1	2801.0 m
DIR 013	Cockburn 1	182.6 m
DIR 014	Cockburn 1	183.3 m
DIR 015	Sue 1	1770.9 m
DIR 016	Sue 1	1225.3 m
DIR 017	Sue 1	1126.4 m
DIR 018	Sue 1	1128.1 m
DIR 019	Allanooka 2	100.0 m
DIR 020	Quinn's Rock 1	397.2 m
DIR 021	Wicherina 1	804.2 m
DIR 022	Yardarino 1	1490.2 m
DIR 023	Jurien 1	892.9 m
DIR 024	Bookara 1	537.5 m
DIR 025	Sue 1	2890.1 m
DIR 026	Sue 1	2774.4 m
DIR 027	Sue 1	2773.8 m
DIR 028	Sue 1	3076.7 m
DIR 029	Jurien 1	278.13 m
DIR 030	Jurien 1	549.7 m
DIR 031	Arrowsmith 1	2826.4 m
DIR 032	Sue 1	2316.0 m
DIR 033	Sue 1	259.1 m
DIR 034	Goonderoo 1	26.6 m
DIR 035	Yardarino 1	1344.2 m
DIR 036	Wicherina 1	1103.7 m

2.0 Methodology

Hot Dry Rocks Pty Ltd selected samples of rock from each of the 14 wells, based on them being visually representative of the average lithological composition of the formation being sampled. The specimens were labelled, bagged and shipped to HDRPL's laboratory in South Yarra.

Each specimen was prepared for thermal conductivity measurement in a divided bar apparatus[3]. Where possible, three prisms were cut to a thickness of approximately 1/5 to 1/2 the width of the specimen from consolidated core, and were then ground flat and polished. These three samples were taken to investigate variation in thermal conductivity over short distance scales and to determine mean conductivity and uncertainty.

The samples tested were most frequently the shape of quarter core and occasionally were irregular in shape. In the case of weakly consolidated specimens such as DIR016, DIR017, DIR018, DIR020, and DIR021, a hollow cell was used to contain the sample fragments during testing in the divided bar apparatus. The samples were evacuated under >95% vacuum for a minimum of three hours before being submerged in water prior to returning to atmospheric pressure. Water saturation continued at atmospheric pressure for a minimum of three hours, and all samples were left in water until just prior to conductivity measurement.

Values were measured at a standard temperature of 30°C (±2°C). Harmonic mean conductivity (see Figure 1) and one standard deviation uncertainty were calculated for each specimen. Results are presented in the next section.

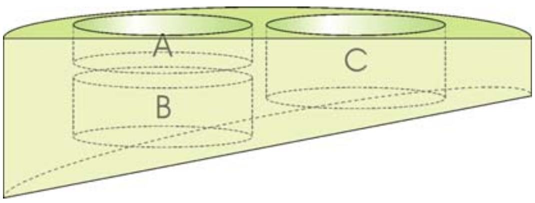

Figure 1. The average conductivity of samples in series (e.g. A and B) is found using the harmonic mean. The average conductivity of samples in parallel (e.g. A and C) is found using the arithmetic mean.

[3] Divided bar apparatus: An instrument that places an unknown sample in series with a standard of known thermal conductivity, then imposes a constant thermal gradient across the combination in order to derive the conductivity of the unknown sample.

3.0 Results

Table 2 displays the thermal conductivity for each individual sample, and the harmonic mean conductivity and standard deviation for each specimen. All values are for a standard temperature of 30°C. The uncertainty for individual samples is within the range of ± 4.0% to >10% for consolidated samples (based on the instrument precision of the divided bar apparatus).

Table 2. Thermal conductivity of samples at 30°C, and harmonic mean and uncertainty[4] for each specimen**.**

Formation	Well	Depth	Sample		Conductivity (W/mK)	
Parmelia Group	Gingin 1	1018.8 m	DIR 001	A	2.45 (± 4.0%)	2.58 ± 0.32
				B	2.39 (± 4.0%)	
				C	2.98 (± 4.0%)	
Yarragadee Formation	Gingin 1	2478.2 m	DIR 002	A	2.07 (± 4.0%)	2.3 ± 0.42
				B	2.82 (± 10%)	
				C	2.13 (± 4.0%)	
Yarragadee Formation	Gingin 1	2976.4 m	DIR 003	A	4.61 (± 10.0%)	4.31 ± 0.26
				B	4.15 (± 10.0%)	
				C	4.05 (± 4.0%)	
				D	4.47 (± 10%)	
Cadda Formation	Gingin 1	3468.0 m	DIIR 004	A	4.98 (± 4.0%)	4.55 ± 0.86
				B	5.33 (± 4.0%)	
				C	3.69 (± 4.0%)	
Kockatea Shale	Arrowsmith 1	2679.2 m	DIR 005	A	2.14 (± 4.0%)	2.09 ± 0.06
				B	2.02 (± 4.0%)	
				C	2.13 (± 4.0%)	
Cattamarra Coal Measures	Gingin 1	3817.3 m	DIR 006	A	4.23 (± 4.0%)	4.47 ± 0.23
				B	4.53 (± 4.0%)	
				C	4.68 (± 4.0%)	
Basement	Woolmulla 1	2807.8 m	DIR 007	A	3.14 (± 10%)	2.97 ± 0.15
				B	2.91 (± 10%)	
				C	2.87 (± 4.0%)	
Cadda Formation	Hill River 1	112.8 m	DIR 008	A	3.69 (± 10%)	3.79 ± 0.18
				B	4.01 (± 4.0%)	
				C	3.7 (± 10%)	

[4] Uncertainty of the thermal conductivity for each specimen is one standard deviation of the measured values.

Gage Sandstone	Quinn's Rock 1	776.3 m	DIR 009	A	1.68 (± 4.0%)	1.71 ± 0.05
				B	1.69 (± 4.0%)	
				C	1.77 (± 4.0%)	
Gage Sandstone	Quinn's Rock 1	775.7 m	DIR 010	A	2.17 (± 4.0%)	2.2 ± 0.04
				B	2.19 (± 4.0%)	
				C	2.24 (± 4.0%)	
Lesueur Sandstone	North Euragulla 1	2800.2 m	DIR 011	A	3.88 (± 10%)	3.77 ± 0.24
				B	3.65 (± 10%)	
				C	3.54 (± 10%)	
				D	4.06 (± 10%)	
Lesueur Sandstone	North Euragulla 1	2801.0 m	DIR 012	A	1.53 (± 4.0%)	1.74 ± 0.21
				B	1.93 (± 4.0%)	
				C	1.82 (± 4.0%)	
South Perth Shale	Cockburn 1	182.6 m	DIR 013	A	1.77 (± 4.0%)	1.71 ± 0.20
				B	1.5 (± 10%)	
				C	1.9 (± 4.0%)	
South Perth Shale	Cockburn 1	183.3 m	DIR 014	A	1.74 (± 10%)	1.72 ± 0.08
				B	1.78 (± >10%)	
				C	1.76 (± 10%)	
				D	1.61 (± 10%)	
Sue Group: Willespie Formation	Sue 1	1770.9 m	DIR 015	A	1.79 (± 4.0%)	1.91 ± 0.16
				B	2.1 (± 4.0%)	
				C	1.86 (± 4.0%)	
Sue Group: Willespie Formation	Sue 1	1125.3 m	DIR 016	A	1.96 (± 4.0%)	2.01 ± 0.05
				B	2.06 (± 4.0%)	
				C	2.01 (± 4.0%)	
Sabina Sandstone	Sue 1	1126.4 m	DIR 017	A	2.72 (± 4.0%)	2.80 ± 0.10
				B	2.78 (± 4.0%)	
				C	2.92 (± 4.0%)	
Sabina Sandstone	Sue 1	1128.1 m	DIR 018	A	2.65 (± 4.0%)	2.78 ± 0.13
				B	2.91 (± 4.0%)	
				C	2.79 (± 4.0%)	
Basement (Palaeozoic gneiss)	Allanooka 2	100.0 m	DIR 019	A	3.42 (± 4.0%)	3.26 ± 0.10
				B	3.21 (± 4.0%)	
				C	3.19 (± 4.0%)	
				D	3.25 (± 4.0%)	
Leederville Formation	Quinn's Rock 1	397.2 m	DIR 020	A	2.77 (± 10%)	2.56 ± 0.18
				B	2.49 (± 10%)	
				C	2.43 (± 10%)	

Irwin River Coal Measures	Wicherina 1	804.2 m	DIR 021	A	3.01 (± 4.0%)	3.02 ± 0.14
				B	3.17 (± 4.0%)	
				C	2.90 (± 4.0%)	
Eneabba Formation	Yardarino 1	1490.2 m	DIR 022	A	2.8 (± 4.0%)	2.62 ± 0.44
				B	2.19 (± 4.0%)	
				C	3.04 (± 4.0%)	
High Cliff Sandstone	Jurien 1	892.9 m	DIR 023	A	4.35 (± 10%)	4.40 ± 0.20
				B	4.62 (± 10%)	
				C	4.24 (± 10%)	
Basement	Bookara 1	537.5 m	DIR 024	A	3.29 (± 4.0%)	3.52 ± 0.22
				B	3.71 (± 4.0%)	
				C	3.59 (± 4.0%)	
Sue Group: Woodynook Sandstone	Sue 1	2890.1 m	DIR 025	A	4.47 (± 4.0%)	4.15 ± 0.28
				B	4.1 (± 4.0%)	
				C	3.92 (± 4.0%)	
Sue Group: Rosabrook Coal Measures	Sue 1	2774.4 m	DIR 026	A	1.43 (± 4.0%)	1.30 ± 0.11
				B	1.23 (± 10%)	
				C	1.27 (± 4.0%)	
Sue Group: Rosabrook Coal Measures	Sue 1	2773.8 m	DIR 027	A	4.08 (± 4.0%)	4.11 ± 0.08
				B	4.05 (± 4.0%)	
				C	4.2 (± 4.0%)	
Basement?	Sue 1	3076.7 m	DIR 028	A	3.14 (± 4.0%)	3.04 ± 0.13
				B	2.9 (± 10%)	
				C	3.1 (± 10%)	
Beekeeper Formation	Jurien 1	278.13 m	DIR 029	A	2.51 (± 4.0%)	2.25 ± 0.21
				B	2.16 (± 4.0%)	
				C	2.11 (± 4.0%)	
Carynginia Formation	Jurien 1	549.7 m	DIR 030	A	1.75 (± 4.0%)	2.08 ± 0.57
				B	2.55 (± 4.0%)	
Carynginia Formation	Arrowsmith 1	2826.4 m	DIR 031	A	1.43 (± 4.0%)	1.54 ± 0.15
				B	1.72 (± 4.0%)	
				C	1.51 (± 4.0%)	
Sue Group: Redgate Coal Measures	Sue 1	2316.0 m	DIR 032	A	3.08 (± 4.0%)	3.03 ± 0.06
				B	2.97 (± 4.0%)	
				C	3.03 (± 4.0%)	

Sue Group: Ashbrook Sandstone	Sue 1	259.1 m	DIR 033	A	3.72 (± 4.0%)	3.98 ± 0.24
				B	4.19 (± 4.0%)	
				C	4.05 (± 10%)	
Noondyne Chert	Goonderoo 1	26.6 m	DIR 034	A	7.01 (± 4.0%)	7.01 ± 0.11
				B	6.85 (± 4.0%)	
				C	7.05 (± 4.0%)	
				D	7.12 (± 4.0%)	
Cattamarra Coal Measures	Yardarino 1	1344.2 m	DIR 035	A	3.03 (± 4.0%)	3.20 ± 0.18
				B	3.38 (± 4.0%)	
				C	3.22 (± 4.0%)	
Holmwood Shale	Wicherina 1	1103.7 m	DIR 036	A	1.45 (± 10%)	1.45 ± 0.15

4.0 Discussion and conclusions

In most cases, the measured values agree closely for samples taken from the same specimen. This implies that for these specimens variation in thermal conductivity is not significant over the scale of centimetres. There are some specimens however, such as DIR004, DIR022, and DIR030, which do show variability of thermal conductivity between samples and this implies that for these specimens variation in thermal conductivity over scale of centimetres can be significant.

The conductivities recorded from these specimens are in the low, normal, and high range for sedimentary and metamorphic sequences, ranging from 1.3 to 6.97 W/mK. These results suggest that while some of the formations assessed in this study could act as attractive thermal insulation for geothermal systems, while others may not.

The following additional points must be considered if extrapolating the results in this report to in situ formations:

1. The samples upon which the thermal conductivity measurements were made are only several square centimetres in surface area. While the specimens were chosen to represent the geological sections from which they came, there is no guarantee that the sections themselves are typical of the overall geological formations. This is especially true for heterogeneous formations. This introduces an unquantifiable random error into the results.

2. Porosity exerts a primary influence on the thermal conductivity of a rock. Water is substantially less conductive than typical mineral grains[5], and water saturated pores act to reduce the bulk thermal conductivity of the rock. Gas-filled pores reduce the bulk conductivity even more dramatically. Results reported in this document are whole-rock measurements. No adjustments were made for porosity. It is to be expected that the thermal conductivity of a given formation will vary from place to place if the porosity of the formation varies (conductivity decreases with increasing porosity).

[5] **Beardsmore, G.R. and Cull, J.P.** (2001). *Crustal heat flow: A guide to measurement and modelling*. Cambridge University Press, Cambridge. 324pp.

3. Thermal conductivity of rocks is sensitive to temperature[2], typically decreasing at a rate of around 0.16% per °C. This should be kept in mind when developing models of *in situ* thermal conductivity.

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Appendix 2

Heat Flow Models for the Perth Basin.

An appendix to the report - Geothermal Energy Potential in Selected Areas of Western Australia (Perth Basin); prepared for the Department of Industry and Resources, Western Australia.

July 2008.

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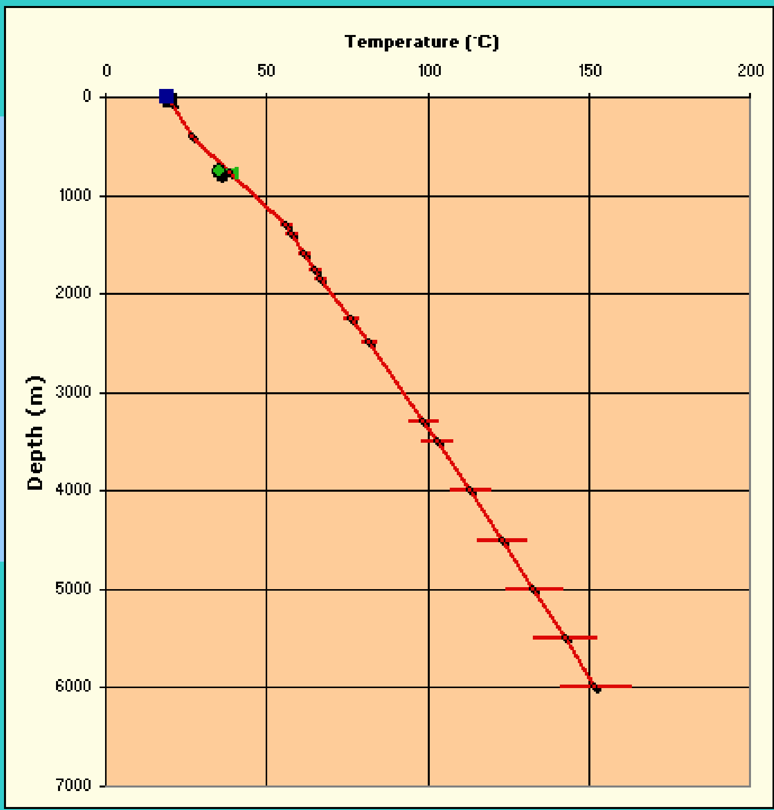
1.0 Heat Flow Models

Number of layers	19	Up to 50	Heat flow: 62 ± 1.9 mW/m2
"Depth" to ground level	0	"KB height"	
Total Depth (m)	6000	From drilling datum	
Surface temp. (°C)	19.25	Alexandra Bridge-1	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	Quaternary	0	1.42 ± 0.14
2	Leederville Formation	3	2.56 ± 0.18
3	Lesueur Sandstone	70	3.56 ± 0.23
4	Sabina Sandstone	401	2.79 ± 0.12
5	Willespie Formation	408	1.96 ± 0.11
6	Willespie Formation	776	1.96 ± 0.11
7	Redgate Coal Measures	1300	2.87 ± 0.09
8	Ashbrook Sandstone	1391	3.98 ± 0.24
9	Rosabrook Coal Measure	1600	2.87 ± 0.09
10	Woodynook Sandstone	1758	4.15 ± 0.28
11	Mosswood Formation	1854	2.75 ± 0.42
12	Basement	2250	3.20 ± 0.40
13	Basement	2500	3.20 ± 0.40
14	Basement	3300	3.20 ± 0.40
15	Basement	3500	3.20 ± 0.40
16	Basement	4000	3.20 ± 0.40
17	Basement	4500	3.20 ± 0.40
18	Basement	5000	3.20 ± 0.40
19	Basement	5500	3.20 ± 0.40

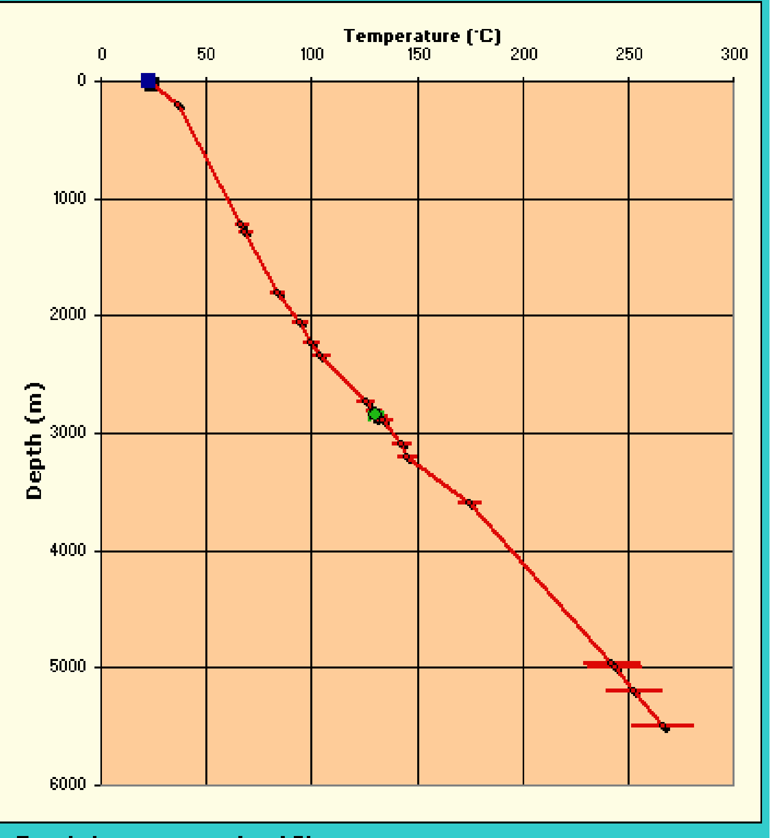


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
762.9144	35.56	0	5.3404	BHT, ΔT not recorded
757.428	35.56	0	5.302	BHT, ΔT not recorded
759.56	35.56	0	5.3169	BHT, ΔT not recorded

Number of layers	18	Up to 50	**Heat flow:**	99	± 5.2 mW/m2
"Depth" to ground level	0	"KB height"			
Total Depth (m)	5500	From drilling datum			
Surface temp. (˚C)	22.5	Apium-1			

	Formation Name	Top (m)	Cond @ 25˚C (W/mK)
1	Quaternary	0	1.42 ± 0.14
2	Yarragadee Formation	200	3.54 ± 0.30
3	Cadda Formation	1222	4.14 ± 0.52
4	Cattamarra Coal Measure	1281	3.73 ± 0.20
5	Eneabba Formation	1801	2.62 ± 0.44
6	Leseuer Sandstone	2055	3.56 ± 0.23
7	Woodada Formation	2225	2.79 ± 0.12
8	Kockatea Shale	2334	2.09 ± 0.06
9	Dongara Sandstone	2727	2.92 ± 0.56
10	Carynginia Formation	2815	1.77 ± 0.36
11	Carynginia Formation	2860	1.77 ± 0.36
12	Irwin River Coal Measures	2890	3.02 ± 0.50
13	High Cliff Sandstone	3100	4.40 ± 0.20
14	Holmwood Shale	3200	1.45 ± 0.15
15	Nangetty Formation	3600	2.75 ± 0.48
16	Wicherina Beds	4970	2.75 ± 0.48
17	Basement	5000	3.20 ± 0.40
18	Basement	5200	3.20 ± 0.40

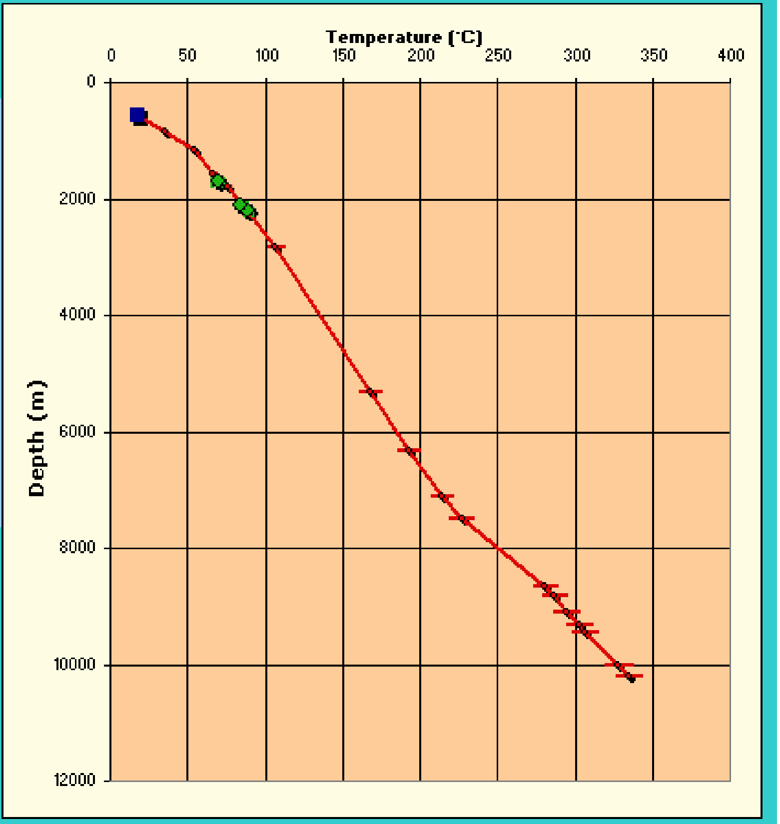


Downhole temperature data (˚C):

Depth (m)	Value	-uncert	+uncert	Comment:
2840.6	130.5	3	3	Horner corrected, depths averaged

Number of layers	18	Up to 50	**Heat flow:** 69 ± 1.7 mW/m2
"Depth" to ground level	562	"KB height"	
Total Depth (m)	10200	From drilling datum	
Surface temp. (˚C)	18	Araucaria-1	

	Formation Name	Top (m)	Cond @ 25˚C (W/mK)
1		562	1.13 ± 0.08
2	Coolyena Formation	562	1.13 ± 0.08
3	Osborne Formation	852	1.13 ± 0.08
4	Leederville Formation	1157	2.56 ± 0.18
5	South Perth Shale	1578	1.71 ± 0.14
6	Parmelia Group	1806	2.58 ± 0.33
7	Parmelia Group	2218	2.58 ± 0.33
8	Yarragadee Formation	2833	3.54 ± 0.30
9	Cattamarra Coal Measure	5333	3.73 ± 0.20
10	Lesueur Sandstone	6333	3.56 ± 0.23
11	Sabina Sandstone	7113	2.79 ± 0.12
12	Willespie Formation	7485	1.96 ± 0.11
13	Redgate Coal Measures	8652	2.87 ± 0.09
14	Ashbrook Sandstone	8813	3.98 ± 0.24
15	Rosabrook Coal Measure	9101	2.87 ± 0.09
16	Woodynook Sandstone	9319	4.15 ± 0.28
17	Mosswood Formation	9453	2.75 ± 0.42
18	Basement	10000	3.20 ± 0.40

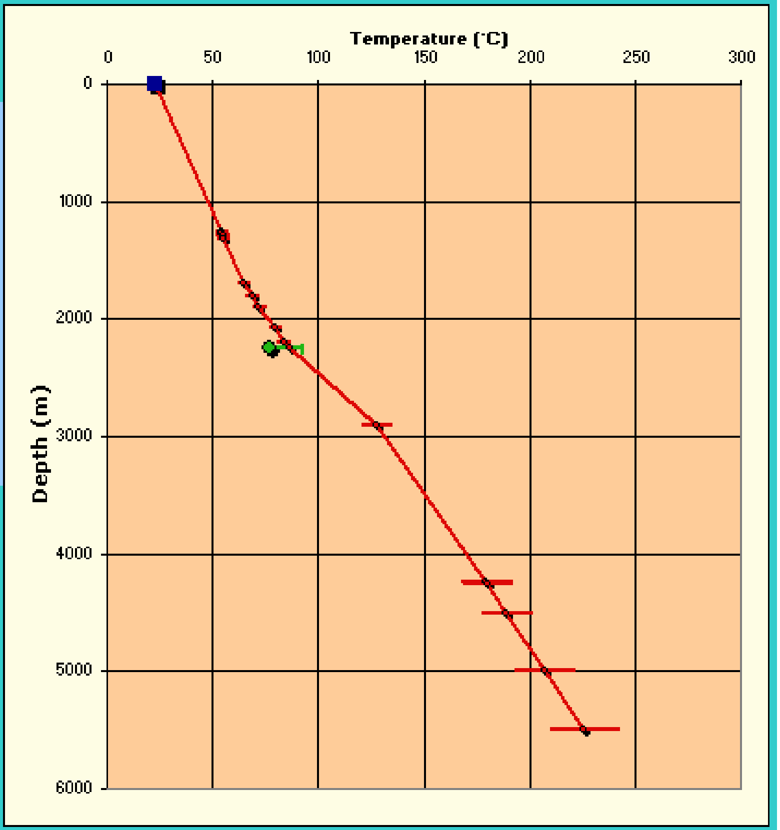


Downhole temperature data (˚C):

Depth (m)	Value	-uncert	+uncert	Comment:
1708.9	69.86	3	3	horner corrected, depths averaged
2215.3	89.07	2	3	horner corrected, depths averaged
2107	83.5	0	5.845	BHT, ΔT 22.85 hours

Number of layers	16	Up to 50	**Heat flow:**	86	± 4.6 mW/m2
"Depth" to ground level	0	"KB height"			
Total Depth (m)	5500	From driling datum			
Surface temp. (°C)	22.5	**Arradale-1**			

	Formation Name	Top (m)	Cond @ 25°C (W/mK)	
1	Yarragadee Formation	0	3.54	± 0.30
2	Cadda Formation	1255	4.14	± 0.52
3	Newmarracarra Limestone	1274	4.14	± 0.52
4	Colalura Sandstone	1288	4.14	± 0.52
5	Cattamarra Coal Measure	1318	3.73	± 0.20
6	Eneabba Formation	1692	2.62	± 0.44
7	Woodada Formation	1810	2.79	± 0.12
8	Kockatea Shale	1905	2.09	± 0.06
9	Wagina Sandstone	2073	2.92	± 0.56
10	Holmwood Shale	2203	1.45	± 0.15
11	Holmwood Shale	2245	1.45	± 0.15
12	Nangetty Formation	2900	2.75	± 0.48
13	Wicherina Beds	4234	2.75	± 0.48
14	Basement	4250	3.20	± 0.40
15	Basement	4500	3.20	± 0.40
16	Basement	5000	3.20	± 0.40

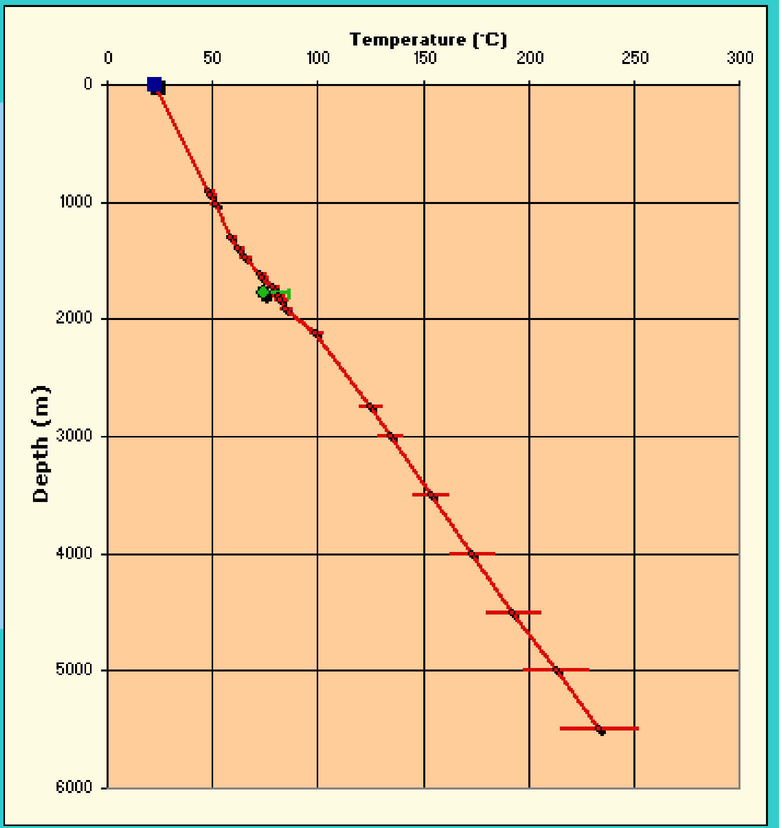


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
2240	77	0	15.68	BHT, ΔT not recorded

Number of layers	22	Up to 50	**Heat flow:** 98 ± 3.6 mW/m2
"Depth" to ground level	4	"KB height"	
Total Depth (m)	5500	From drilling datum	
Surface temp. (°C)	22.5	**Arranoo Sth**	3000

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		4	3.54 ± 0.30
2	Yarragadee Formation	4	3.54 ± 0.30
3	Champion Bay Group	913	4.14 ± 0.52
4	Newmarracarra Limestone	947	4.14 ± 0.52
5	Cattamarra Coal Measure	1028	3.73 ± 0.20
6	Eneabba Formation	1305	2.62 ± 0.44
7	Woodada Formation	1395	2.79 ± 0.12
8	Kockatea Shale	1474	2.09 ± 0.06
9	Dongara Sandstone	1624	2.92 ± 0.56
10	Carynginia Formation	1644	1.77 ± 0.36
11	Irwin River Coal Measures	1731	3.02 ± 0.50
12	Irwin River Coal Measures	1810	3.02 ± 0.50
13	High Cliff Sandstone	1835	4.40 ± 0.20
14	Holmwood Shale	1920	1.45 ± 0.15
15	Nangetty Formation	2120	2.75 ± 0.48
16	Wicherina Beds	2743	2.75 ± 0.48
17	Basement	2750	3.20 ± 0.40
18	Basement	3000	3.20 ± 0.40
19	Basement	3500	3.20 ± 0.40
20	Basement	4000	3.20 ± 0.40
21	Basement	4500	3.20 ± 0.40
22	Basement	5000	3.20 ± 0.40

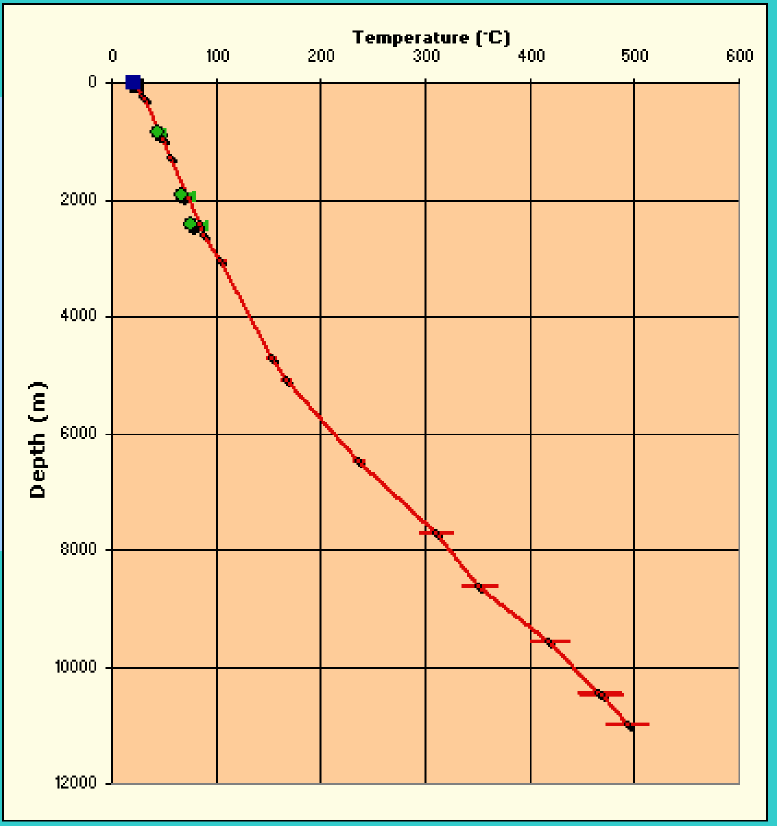


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1773	74	0	12.411	BHT, ΔT not recorded

Number of layers	19	Up to 50	Heat flow:	83	± 3.6 mW/m2
"Depth" to ground level	5	"KB height"			
Total Depth (m)	11000	From drilling datum			
Surface temp. (°C)	21.125	Badaminna-1			

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		5	1.42 ± 0.14
2	Recent surface sands	5	1.42 ± 0.14
3	Recent coastal Limestone	18	1.42 ± 0.14
4	Leederville Formation	61	2.56 ± 0.18
5	South Perth Shale	241	1.71 ± 0.14
6	Yarragadee Formation	288	3.54 ± 0.30
7	Cadda Formation	967	4.14 ± 0.52
8	Cattamarra Coal Measure	1298	3.73 ± 0.20
9	Cattamarra Coal Measure	2438	3.73 ± 0.20
10	Eneabba Formation	2599	2.62 ± 0.44
11	Leseuer Sandstone	3064	3.56 ± 0.23
12	Woodada Formation	4737	2.79 ± 0.12
13	Kockatea Shale	5109	2.09 ± 0.06
14	Carynginia Formation	6503	1.77 ± 0.36
15	Irwin River Coal Measures	7711	3.02 ± 0.50
16	Holmwood Shale	8640	1.45 ± 0.15
17	Nangetty Formation	9569	2.75 ± 0.48
18	Wicherina Beds	10452	2.75 ± 0.48
19	Basement	10500	3.20 ± 0.40

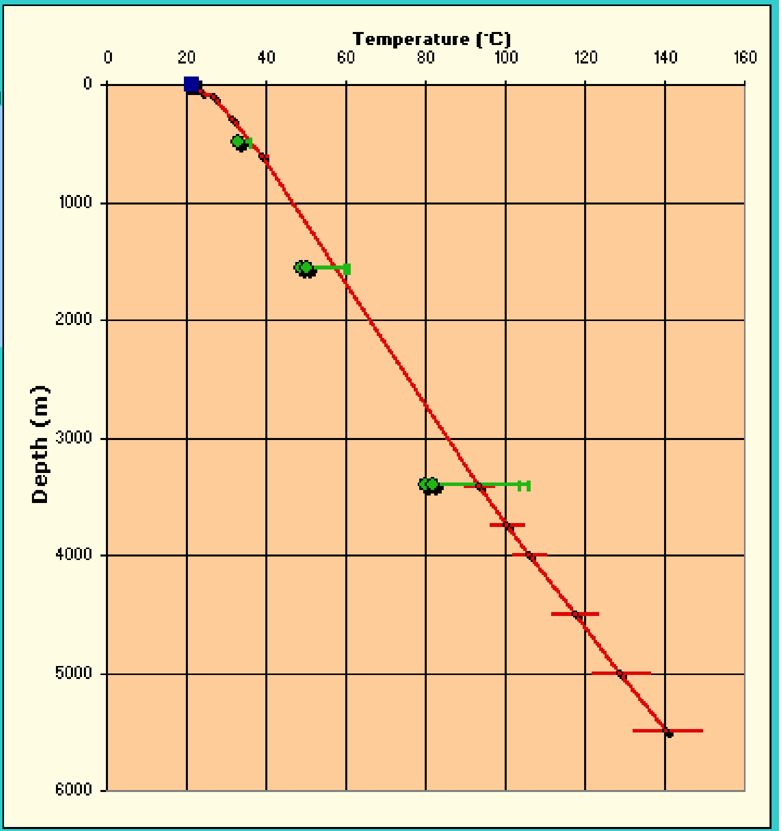


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
853.1352	44.44	0	5.9719	BHT, ΔT not recorded
850.6968	44.44	0	5.9549	BHT, ΔT not recorded
852.5256	44.44	0	5.9677	BHT, ΔT not recorded
1908.66	66.67	0	13.361	BHT, ΔT not recorded
1905.6096	66.67	0	13.339	BHT, ΔT not recorded
2427.4272	75.56	0	16.992	BHT, ΔT not recorded
2424.684	75.56	0	16.973	BHT, ΔT not recorded

Number of layers	10	Up to 50	Heat flow:	63 ± 2.4 mW/m2
"Depth" to ground level	0	"KB height"		
Total Depth (m)	5500	From drilling datum		
Surface temp. (°C)	21.25	Barberton-1		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	Tertiary Sandstone	0	1.42 ± 0.14
2	Osborne Formation	58	1.13 ± 0.08
3	Leederville Formation	112	2.56 ± 0.18
4	Parmelia Group	300	2.58 ± 0.33
5	Lesueur Sandstone	608	3.56 ± 0.23
6	Lesueur Sandstone	3414	3.56 ± 0.23
7	Basement	3750	3.20 ± 0.40
8	Basement	4000	3.20 ± 0.40
9	Basement	4500	3.20 ± 0.40
10	Basement	5000	3.20 ± 0.40

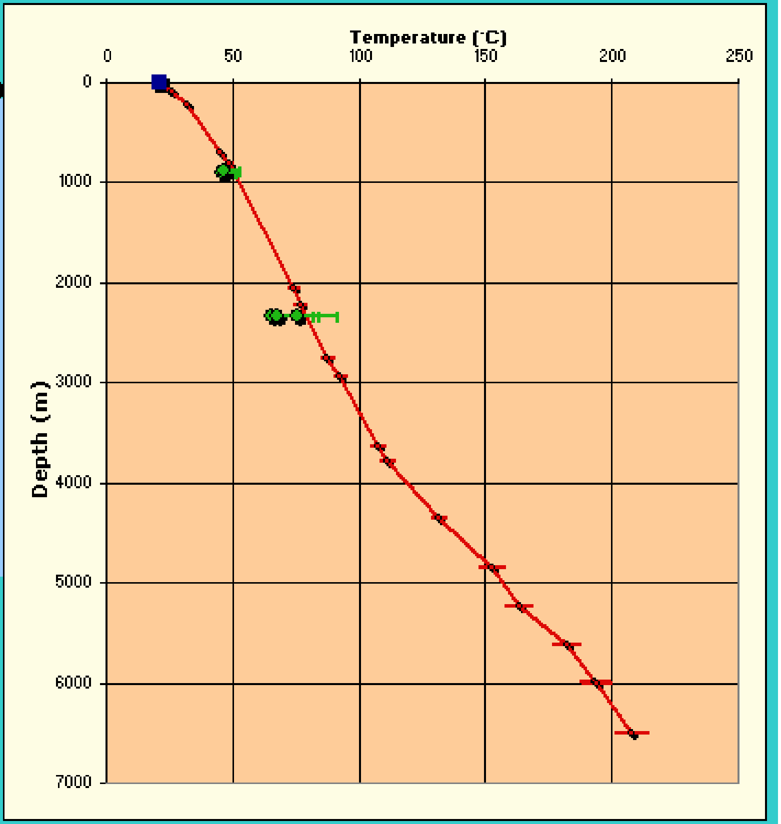


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
492.2	33	0	3.4454	BHT, ΔT not recorded
1562.3	49	0	10.936	BHT, ΔT not recorded
1560	50	0	10.92	BHT, ΔT not recorded
3406	80	0	23.842	BHT, ΔT not recorded
3405	82	0	23.835	BHT, ΔT not recorded

Number of layers	20	Up to 50	Heat flow:	65	± 2.2 mW/m2
"Depth" to ground level	4	"KB height"			
Total Depth (m)	6500	From drilling datum			
Surface temp. (°C)	21.125	Barragoon-1			

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		4	1.42 ± 0.14
2	Quaternary sands	4	1.42 ± 0.14
3	Quaternary Limestone	8	1.42 ± 0.14
4	Coolyena Group	75	1.13 ± 0.08
5	Osborne Formation	100	1.13 ± 0.08
6	Leederville Formation	213	2.56 ± 0.18
7	South Perth Shale	699	1.71 ± 0.14
8	Yarragadee Formation	803	3.54 ± 0.30
9	Cadda Formation	2064	4.14 ± 0.52
10	Cattamarra Coal Measure	2217	3.73 ± 0.20
11	Eneabba Formation	2752	2.62 ± 0.44
12	Leseuer Sandstone	2943	3.56 ± 0.23
13	Woodada Formation	3631	2.79 ± 0.12
14	Kockatea Shale	3784	2.09 ± 0.06
15	Carynginia Formation	4357	1.77 ± 0.36
16	Irwin River Coal Measures	4854	3.02 ± 0.50
17	Holmwood Shale	5236	1.45 ± 0.15
18	Nangetty Formation	5618	2.75 ± 0.48
19	Wicherina Beds	5981	2.75 ± 0.48
20	Basement	6000	3.20 ± 0.40

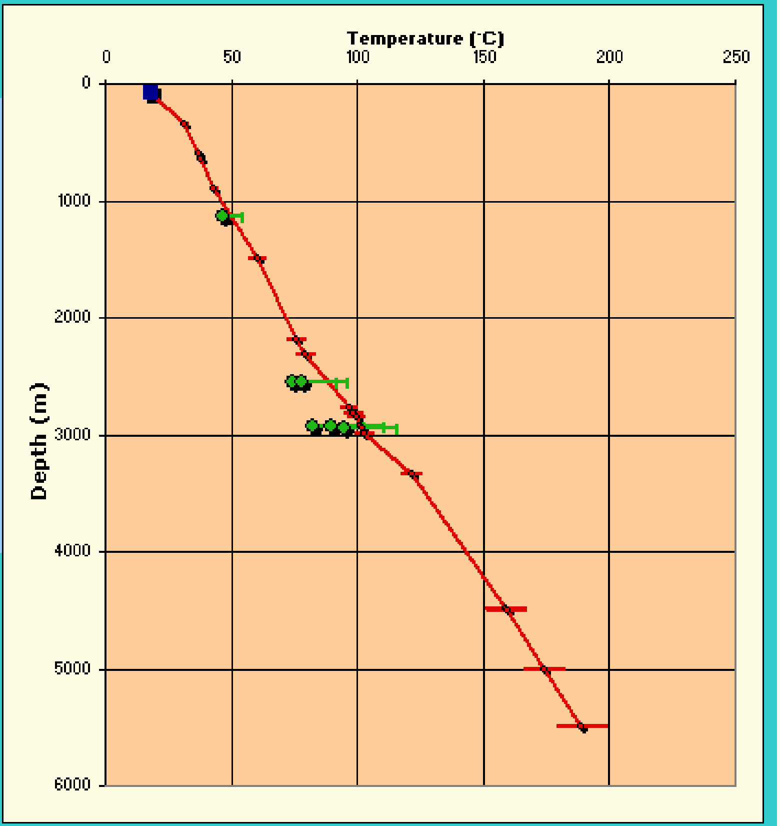


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
891.2	45.56	0	6.2384	BHT, ΔT not recorded
885	46.67	0	6.195	BHT, ΔT not recorded
2328	65.56	0	16.296	BHT, ΔT not recorded
2327.7	67.78	0	16.294	BHT, ΔT not recorded
2328	75.56	0	16.296	BHT, ΔT not recorded

Number of layers	19	Up to 50	Heat flow: 73 ± 3.5 mW/m2
"Depth" to ground level	84	"KB height"	
Total Depth (m)	5500	From driling datum	
Surface temp. (°C)	18	Batavia-1	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		84	1.42 ± 0.14
2	Recent	84	1.42 ± 0.14
3	Yarragadee Formation	345	3.54 ± 0.30
4	Cadda Formation	602	4.14 ± 0.52
5	Cattamarra Coal Measure	641	3.73 ± 0.20
6	Eneabba Formation	901	2.62 ± 0.44
7	Lesueur Sandstone	1498	3.56 ± 0.23
8	Woodada Formation	2193	2.79 ± 0.12
9	Kockatea Shale	2318	2.09 ± 0.06
10	Dongara Sandstone	2766	2.92 ± 0.56
11	Carynginia Formation	2822	1.77 ± 0.36
12	Irwin River Coal Measures	2854	3.02 ± 0.50
13	High Cliff Sandstone	2925	4.40 ± 0.20
14	High Cliff Sandstone	2941	4.40 ± 0.20
15	Holmwood Shale	2990	1.45 ± 0.15
16	Nangetty Formation	3337	2.75 ± 0.48
17	Wicherina Beds	4488	2.75 ± 0.48
18	Basement	4500	3.20 ± 0.40
19	Basement	5000	3.20 ± 0.40

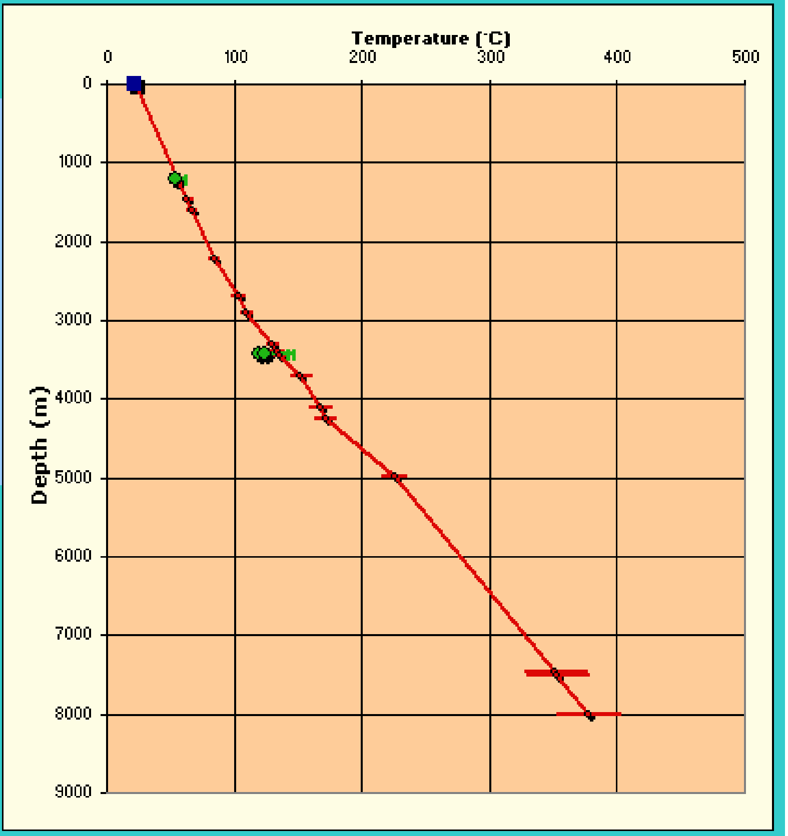


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1136	47	0	7.952	BHT, ΔT not recorded
2550.5	74	0	17.854	BHT, ΔT not recorded
2550	78	0	17.85	BHT, ΔT 24.25 hours
2934	82	0	20.538	BHT, ΔT not recorded
2935	90	0	20.545	BHT, ΔT not recorded
2940.5	95	0	20.584	BHT, ΔT not recorded

Number of layers	16	Up to 50	Heat flow:	93 ± 6.2 mW/m2
"Depth" to ground level	0	"KB height"		
Total Depth (m)	8000	From driling datum		
Surface temp. (°C)	22.5	Beharra Springs Nth-1		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	Recent	0	1.42 ± 0.14
2	Yarragadee Formation	15	3.54 ± 0.30
3	Cadda Formation	1462	4.14 ± 0.52
4	Cattamarra Coal Measure	1612	3.73 ± 0.20
5	Eneabba Formation	2232	2.62 ± 0.44
6	Lesueur Sandstone	2702	3.56 ± 0.23
7	Kockatea Shale	2910	2.09 ± 0.06
8	Dongara Sandstone	3317	2.92 ± 0.56
9	Carynginia Formation	3408	1.77 ± 0.36
10	Carynginia Formation	3450	1.77 ± 0.36
11	Irwin River Coal Measures	3720	3.02 ± 0.50
12	High Cliff Sandstone	4106	4.40 ± 0.20
13	Holmwood Shale	4246	1.45 ± 0.15
14	Nangetty Formation	4994	2.75 ± 0.48
15	Wicherina Beds	7475	2.75 ± 0.48
16	Basement	7500	3.20 ± 0.40

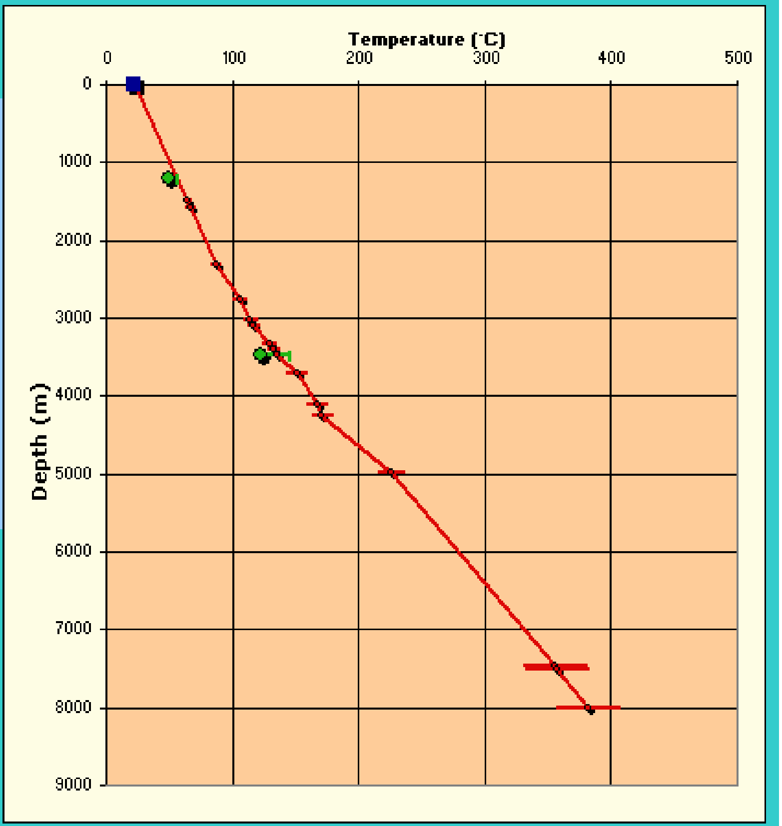


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1215.4	54.5	0	8.5078	BHT, ΔT not recorded
3422	119	0	23.954	BHT, ΔT not recorded
3423	123.2	0	23.961	BHT, ΔT not recorded

Number of layers	18	Up to 50	**Heat flow:** 95 ± 6.4 mW/m2
"Depth" to ground level	8	"KB height"	
Total Depth (m)	8000	From drilling datum	
Surface temp. (°C)	22.5	**Beharra Springs Sth-1**	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		8	1.42 ± 0.14
2	Tertiary	8	1.42 ± 0.14
3	Yarragadee Formation	13	3.54 ± 0.30
4	Cadda Formation	1489	4.14 ± 0.52
5	Cattamarra Coal Measure	1593	3.73 ± 0.20
6	Eneabba Formation	2309	2.62 ± 0.44
7	Lesueur Sandstone	2769	3.56 ± 0.23
8	Woodada Formation	3026	2.79 ± 0.12
9	Kockatea Shale	3083	2.09 ± 0.06
10	Wagina Sandstone	3329	2.92 ± 0.56
11	Carynginia Formation	3411	1.77 ± 0.36
12	Carynginia Formation	3472	1.77 ± 0.36
13	Irwin River Coal Measures	3720	3.02 ± 0.50
14	High Cliff Sandstone	4106	4.40 ± 0.20
15	Holmwood Shale	4246	1.45 ± 0.15
16	Nangetty Formation	4994	2.75 ± 0.48
17	Wicherina Beds	7475	2.75 ± 0.48
18	Basement	7500	3.20 ± 0.40

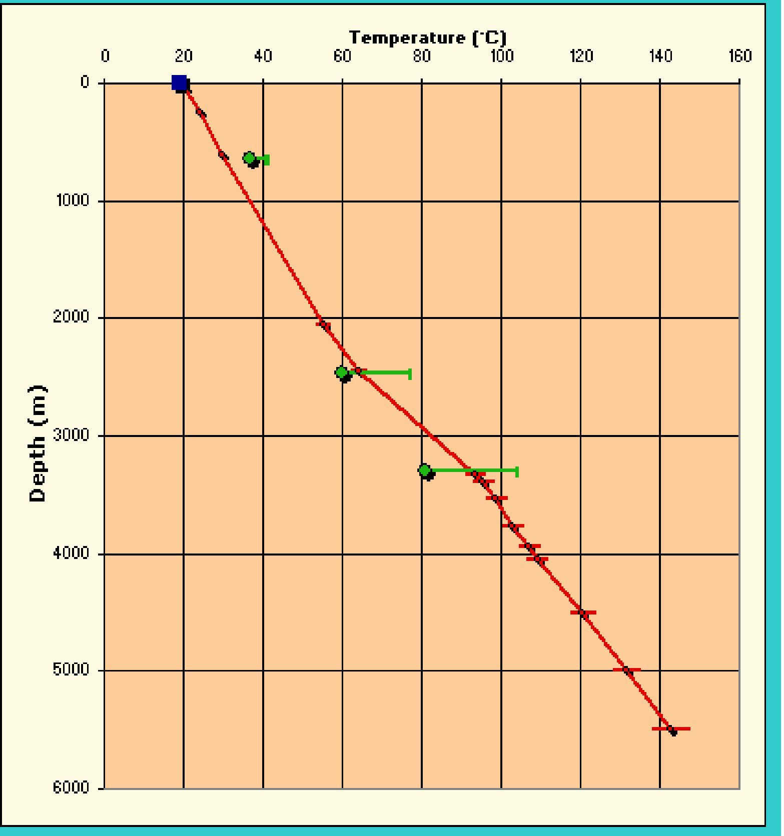


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1202	49	0	8.414	BHT, ΔT not recorded
3467	122	0	24.269	BHT, ΔT not recorded

Number of layers	16	Up to 50	Heat flow:	60	± 1.7 mW/m2
"Depth" to ground level	5	"KB height"			
Total Depth (m)	5500	From drilling datum			
Surface temp. (°C)	19.25	Blackwood-1	3531		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		5	1.42 ± 0.14
2	Quaternary	5	1.42 ± 0.14
3	Warnbro Group	18	2.22 ± 0.16
4	Yarragadee Formation	48	3.54 ± 0.30
5	Cattamarra Coal Measure	251	3.73 ± 0.20
6	Lesueur Sandstone	606	3.56 ± 0.23
7	Sabina Sandstone	2061	2.79 ± 0.12
8	Willespie Formation	2448	1.96 ± 0.11
9	Willespie Formation	3333	1.96 ± 0.11
10	Redgate Coal Measures	3400	2.87 ± 0.09
11	Ashbrook Sandstone	3531	3.98 ± 0.24
12	Rosabrook Coal Measure	3766	2.87 ± 0.09
13	Woodynook Sandstone	3944	4.15 ± 0.28
14	Mosswood Formation	4053	2.75 ± 0.42
15	Basement	4500	3.20 ± 0.40
16	Basement	5000	3.20 ± 0.40

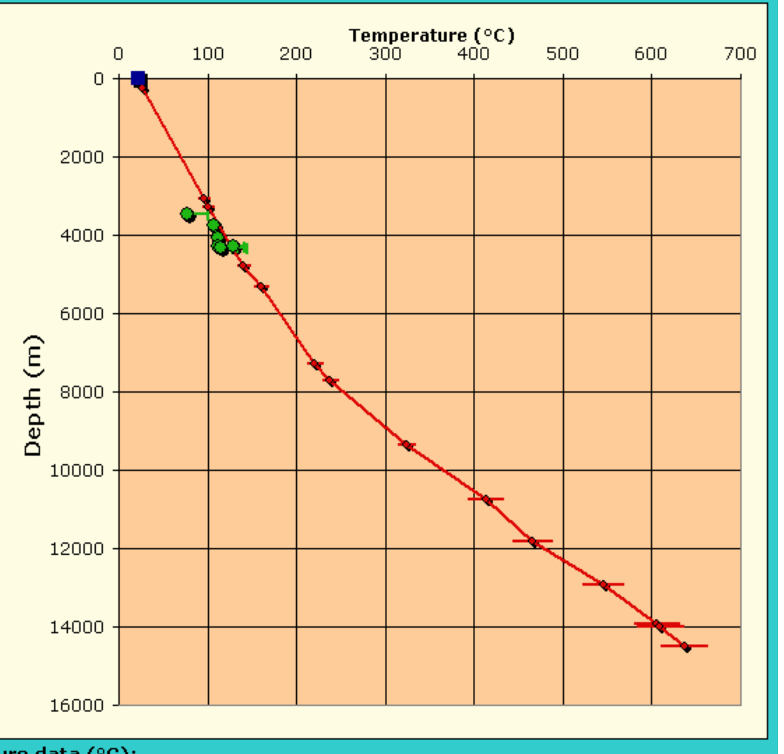


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
643.13	36.67	0	4.5019	BHT, ΔT not recorded
640.38	36.67	0	4.4827	BHT, ΔT not recorded
2466.44	60	0	17.265	BHT, ΔT not recorded
2463.7	60	0	17.246	BHT, ΔT not recorded
3300.37	81.11	0	23.103	BHT, ΔT not recorded
3297.3	81.11	0	23.081	BHT, ΔT not recorded
3299.77	81.11	0	23.098	BHT, ΔT not recorded

Number of layers	15	Up to 50	Heat flow	80	± 3.3 mW/m2
"Depth" to ground level	5	"KB height"			
Total Depth (m)	14500	From driling datum			
Surface temp. (°C)	21.5	Bootine-1			

	Formation Name	Top	Cond @ 25°C
1		5	3.54 ± 0.30
2	Yarragadee Formation	257	3.54 ± 0.30
3	Cadda Formation	3066	4.14 ± 0.52
4	Cattamarra Coal Measures	3280	3.73 ± 0.20
5	Cattamarra Coal Measures	4306	3.73 ± 0.20
6	Eneabba Formation	4796	2.62 ± 0.44
7	Leseuer Sandstone	5337	3.56 ± 0.23
8	Woodada Formation	7286	2.79 ± 0.12
9	Kockatea Shale	7719	2.09 ± 0.06
10	Caryngінia Formation	9343	1.77 ± 0.36
11	Irwin River Coal Measures	10751	3.02 ± 0.50
12	Holmwood Shale	11834	1.45 ± 0.15
13	Nangetty Formation	12917	2.75 ± 0.48
14	Wicherina Beds	13946	2.75 ± 0.48
15	Basement	14000	3.20 ± 0.40

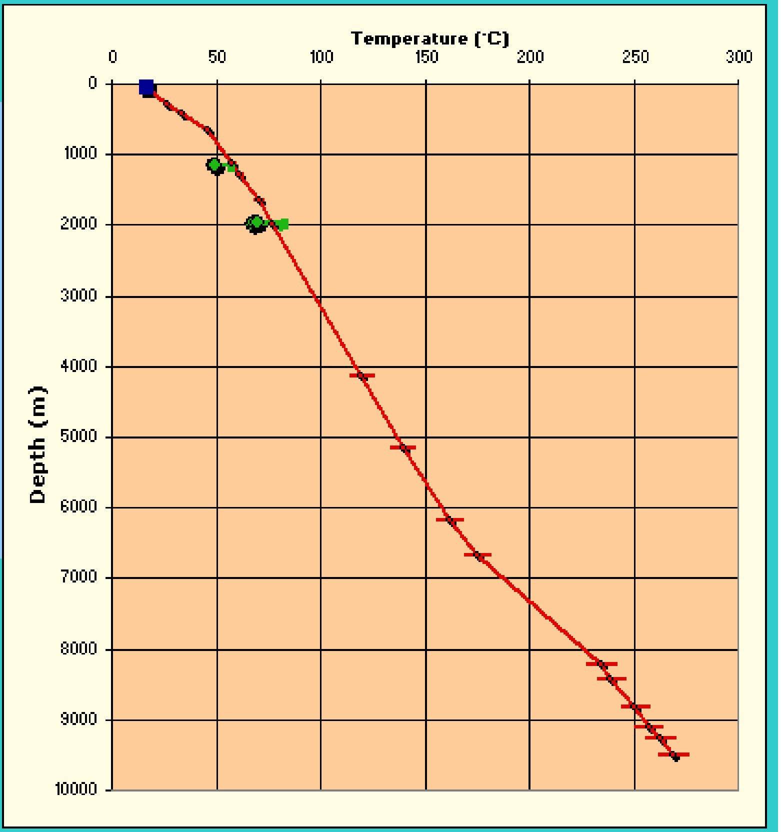


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
4084	112.2	0	2	DST; 'Cased hole test. Tested intervals 4022.5-4028.3m and 4063-4084m combined. Test recovered 16bbl brine with no indications of oil or gas. It was concluded that neither of these zones would produce commercial quantities and where isolated.
3752.5	107.2	0	2	DST; 'Cased hole test. Blow increased from medium to good and produced 2.25Mmscfd max rate of gas @ 600psi, 2bbl condensate was recovered from the drill string.
4303.3	129.4	2	4	Horner corrected, depth averaged
3453	77	0	24.171	BHT, ΔT not recorded
4302	112.2	0	30.114	BHT, ΔT 31.17 hours
4305	114.4	0	30.135	BHT, ΔT 26.75 hours

Number of layers	19	Up to 50	Heat flow: 60 ± 1.4 mW/m2
"Depth" to ground level	63	"KB height"	
Total Depth (m)	9500	From drilling datum	
Surface temp. (°C)	17	Bouvard-1	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		63	1.42 ± 0.14
2	Tertiary	63	1.42 ± 0.14
3	Coolyena Group	281	1.13 ± 0.08
4	Osborne Formation	415	1.13 ± 0.08
5	Warnbro Group	650	2.56 ± 0.18
6	Charlotte Sandstone	1137	2.58 ± 0.33
7	Carnac Formation	1276	2.58 ± 0.33
8	Yarragadee Formation	1648	3.54 ± 0.30
9	Yarragadee Formation	1980	3.54 ± 0.30
10	Cattamarra Coal Measure	4148	3.73 ± 0.20
11	Lesueur Sandstone	5148	3.56 ± 0.23
12	Sabina Sandstone	6181	2.79 ± 0.12
13	Willespie Formation	6673	1.96 ± 0.11
14	Redgate Coal Measures	8217	2.87 ± 0.09
15	Ashbrook Sandstone	8218	3.98 ± 0.24
16	Rosabrook Coal Measure	8429	2.87 ± 0.09
17	Woodynook Sandstone	8811	4.15 ± 0.28
18	Mosswood Formation	9099	2.75 ± 0.42
19	Basement	9275	3.20 ± 0.40

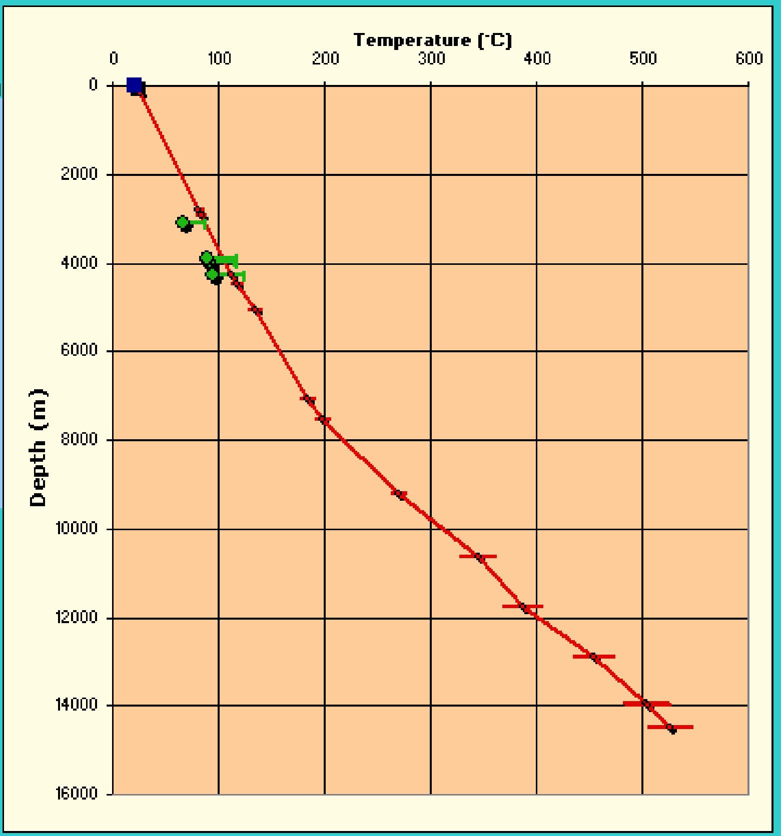


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1162	48.89	0	8.134	BHT, ΔT not recorded
1160	50	0	8.12	BHT, ΔT not recorded
1978	67.22	0	13.846	BHT, ΔT not recorded
1976	68.33	0	13.832	BHT, ΔT not recorded
1976	70	0	13.832	BHT, ΔT not recorded

Number of layers	17	Up to 50	**Heat flow:** 68 ± 2.8 mW/m2
"Depth" to ground level	5	"KB height"	
Total Depth (m)	14500	From drilling datum	
Surface temp. (°C)	21.125	**Bullsbrook-1**	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		5	1.42 ± 0.14
2	Tertiary	5	1.42 ± 0.14
3	Leederville Formation	92	2.56 ± 0.18
4	Yarragadee Formation	160	3.54 ± 0.30
5	Cadda Formation	2809	4.14 ± 0.52
6	Cattamarra Coal Measure	2938	3.73 ± 0.20
7	Cattamarra Coal Measure	4257	3.73 ± 0.20
8	Eneabba Formation	4502	2.62 ± 0.44
9	Leseuer Sandstone	5061	3.56 ± 0.23
10	Woodada Formation	7072	2.79 ± 0.12
11	Kockatea Shale	7519	2.09 ± 0.06
12	Carynginia Formation	9195	1.77 ± 0.36
13	Irwin River Coal Measures	10648	3.02 ± 0.50
14	Holmwood Shale	11765	1.45 ± 0.15
15	Nangetty Formation	12882	2.75 ± 0.48
16	Wicherina Beds	13944	2.75 ± 0.48
17	Basement	14000	3.20 ± 0.40

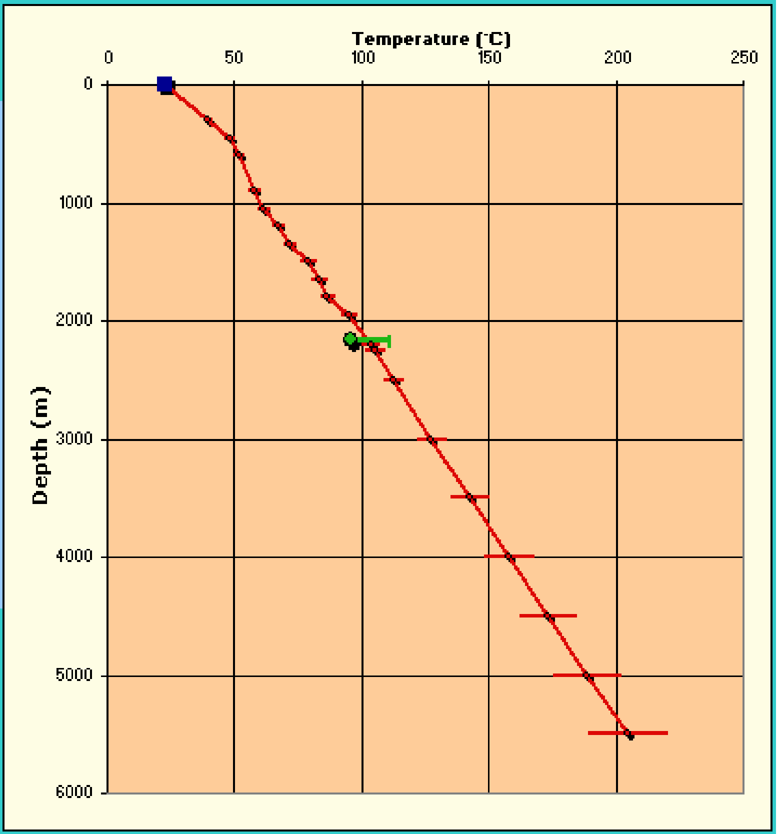


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
3101.0352	66.67	0	21.707	BHT, ΔT not recorded
3099.816	66.67	0	21.699	BHT, ΔT not recorded
3960.5712	90.56	0	27.724	BHT, ΔT not recorded
3955.0848	90	0	27.686	BHT, ΔT not recorded
3947.16	88.89	0	27.63	BHT, ΔT not recorded
3886.2	90	0	27.203	BHT, ΔT not recorded
4252.8744	95.56	0	29.77	BHT, ΔT not recorded

Number of layers	21	Up to 50	**Heat flow:** 80 ± 2.6 mW/m2
"Depth" to ground level	0	"KB height"	
Total Depth (m)	5500	From drilling datum	
Surface temp. (°C)	22.5	Bunjong-1	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	Quaternary	0	1.42 ± 0.14
2	Recent	300	1.42 ± 0.14
3	Yarragadee Formation	450	3.54 ± 0.30
4	Cadda Formation	600	4.14 ± 0.52
5	Cattamarra Coal Measure	900	3.73 ± 0.20
6	Kockatea Shale	1050	2.09 ± 0.06
7	Wagina Sandstone	1200	2.92 ± 0.56
8	Carynginia Formation	1350	1.77 ± 0.36
9	Irwin River Coal Measures	1500	3.02 ± 0.50
10	High Cliff Sandstone	1650	4.40 ± 0.20
11	Holmwood Shale	1800	1.45 ± 0.15
12	Nangetty Formation	1950	2.75 ± 0.48
13	Nangetty Formation	2205	2.75 ± 0.48
14	Wicherina Beds	2247	2.75 ± 0.48
15	Basement	2250	3.20 ± 0.40
16	Basement	2500	3.20 ± 0.40
17	Basement	3000	3.20 ± 0.40
18	Basement	3500	3.20 ± 0.40
19	Basement	4000	3.20 ± 0.40
20	Basement	4500	3.20 ± 0.40
21	Basement	5000	3.20 ± 0.40

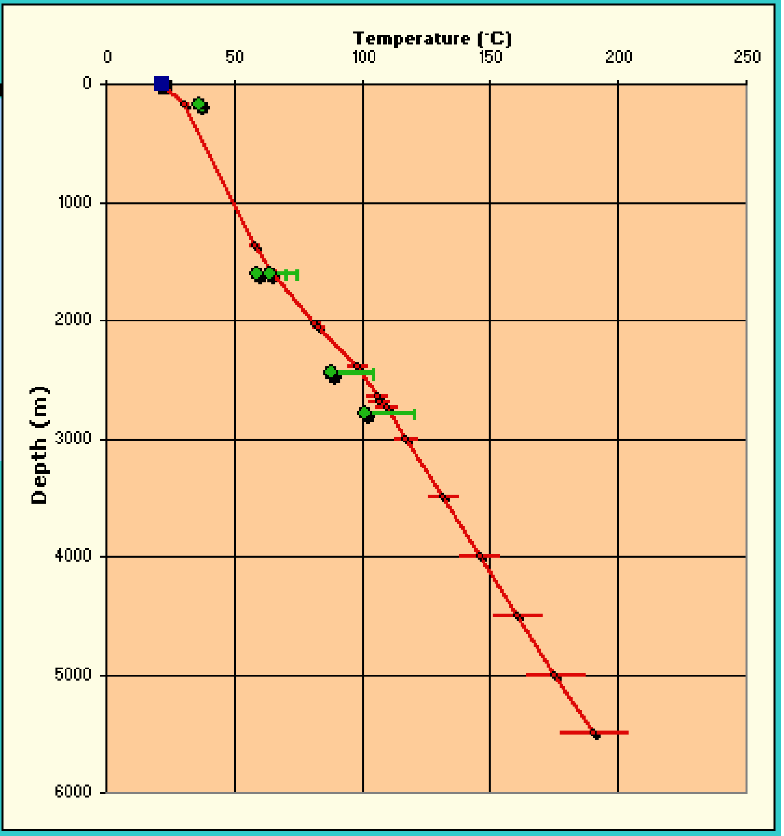


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
2179	96	0	15.253	BHT, ΔT is 48.1 hours
2165	96	0	15.155	BHT, ΔT is 57.55 hours

Number of layers	15	Up to 50	Heat flow:	77 ± 2.6 mW/m2
"Depth" to ground level	4	"KB height"		
Total Depth (m)	5500	From drilling datum		
Surface temp. (°C)	21.625	Cadda-1		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	Quaternary	4	1.42 ± 0.14
2	Lesueur Sandstone	172	3.56 ± 0.23
3	Woodada Formation	1374	2.79 ± 0.12
4	Kockatea Shale	1597	2.09 ± 0.06
5	Beekeeper Formation	2034	2.25 ± 0.21
6	Carynginia Formation	2060	1.77 ± 0.36
7	Irwin River Coal Measure:	2388	3.02 ± 0.50
8	High Cliff Sandstone	2650	4.40 ± 0.20
9	Holmwood Shale	2692	1.45 ± 0.15
10	Basement	2745	3.20 ± 0.40
11	Basement	3000	3.20 ± 0.40
12	Basement	3500	3.20 ± 0.40
13	Basement	4000	3.20 ± 0.40
14	Basement	4500	3.20 ± 0.40
15	Basement	5000	3.20 ± 0.40

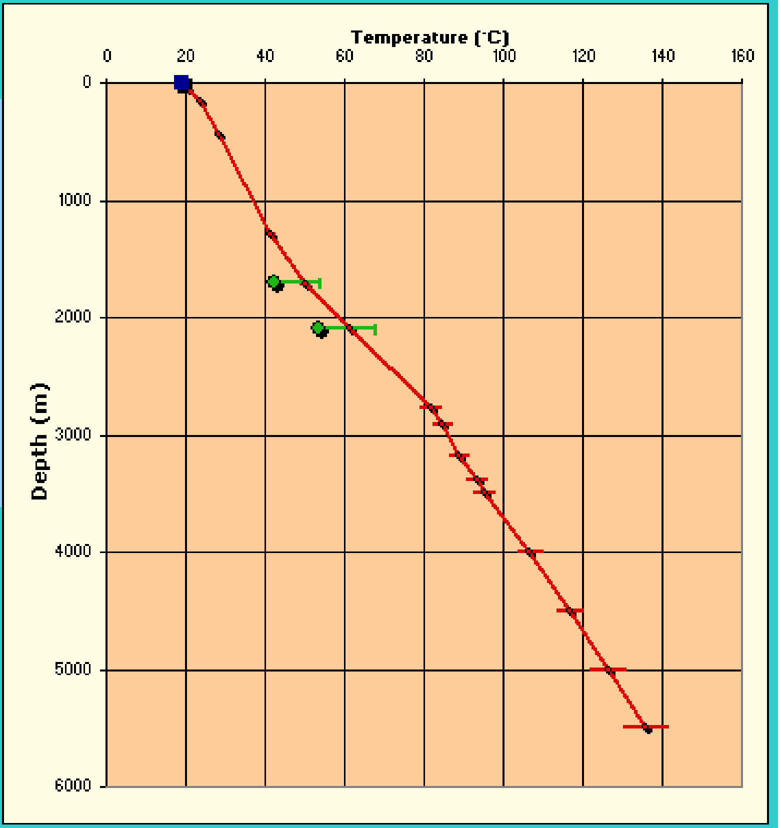


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
178	36.67	0	1.246	BHT, ΔT not recorded
1613.61	58.89	0	11.295	BHT, ΔT not recorded
1603.86	63.89	0	11.227	BHT, ΔT not recorded
2450.29	87.78	0	17.152	BHT, ΔT not recorded
2448.76	87.78	0	17.141	BHT, ΔT not recorded
2787.4	101.11	0	19.512	BHT, ΔT not recorded
2785.57	101.11	0	19.499	BHT, ΔT not recorded

Number of layers	17	Up to 50	Heat flow:	55 ± 1.5 mW/m2
"Depth" to ground level	6	"KB height"		
Total Depth (m)	5500	From drilling datum		
Surface temp. (°C)	19.25	Canebrook-1		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		6	1.42 ± 0.14
2	Quaternary	6	1.42 ± 0.14
3	South Perth Shale	16	1.71 ± 0.14
4	Bunbury Basalt	44	1.80 ± 0.30
5	Cattamarra Coal Measure	150	3.73 ± 0.20
6	Lesueur Sandstone	447	3.56 ± 0.23
7	Sabina Sandstone	1285	2.79 ± 0.12
8	Willespie Formation	1709	1.96 ± 0.11
9	Willespie Formation	2090	1.96 ± 0.11
10	Redgate Coal Measures	2772	2.87 ± 0.09
11	Ashbrook Sandstone	2918	3.98 ± 0.24
12	Rosabrook Coal Measure	3181	2.87 ± 0.09
13	Woodynook Sandstone	3380	4.15 ± 0.28
14	Mosswood Formation	3501	2.75 ± 0.42
15	Basement	4000	3.20 ± 0.40
16	Basement	4500	3.20 ± 0.40
17	Basement	5000	3.20 ± 0.40

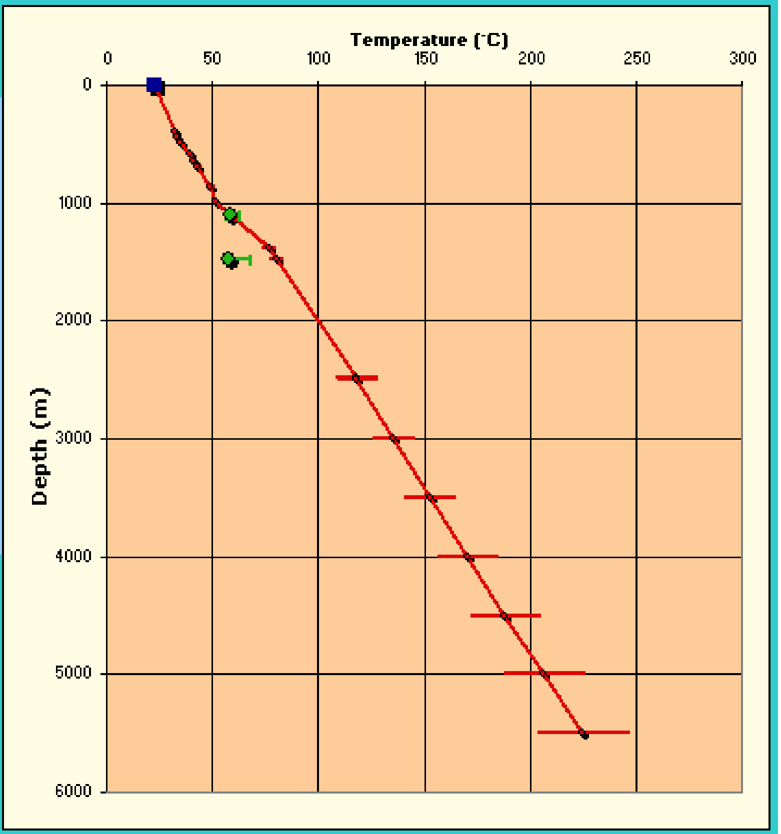


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
2091	53.3	0	14.637	BHT, ΔT is 4 hours
2092	53.3	0	14.644	BHT, ΔT is 8.5 hours
1700	42.2	0	11.9	BHT, ΔT not recorded

Number of layers	19	Up to 50	Heat flow: 90 ± 4.0 mW/m2
"Depth" to ground level	0	"KB height"	
Total Depth (m)	5500	From drilling datum	
Surface temp. (°C)	22.5	Casuarinas-1	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	Quaternary	0	1.42 ± 0.14
2	Yarragadee Formation	4	3.54 ± 0.30
3	Cadda Formation	389	4.14 ± 0.52
4	Cattamarra Coal Measure	434	3.73 ± 0.20
5	Kockatea Shale	489	2.09 ± 0.06
6	Dongara Sandstone	584	2.92 ± 0.56
7	Carynginia Formation	646	1.77 ± 0.36
8	Irwin River Coal Measures	688	3.02 ± 0.50
9	High Cliff Sandstone	869	4.40 ± 0.20
10	Holmwood Shale	985	1.45 ± 0.15
11	Nangetty Formation	1380	2.75 ± 0.48
12	Nangetty Formation	1478	2.75 ± 0.48
13	Wicherina Beds	2489	2.75 ± 0.48
14	Basement	2500	3.20 ± 0.40
15	Basement	3000	3.20 ± 0.40
16	Basement	3500	3.20 ± 0.40
17	Basement	4000	3.20 ± 0.40
18	Basement	4500	3.20 ± 0.40
19	Basement	5000	3.20 ± 0.40

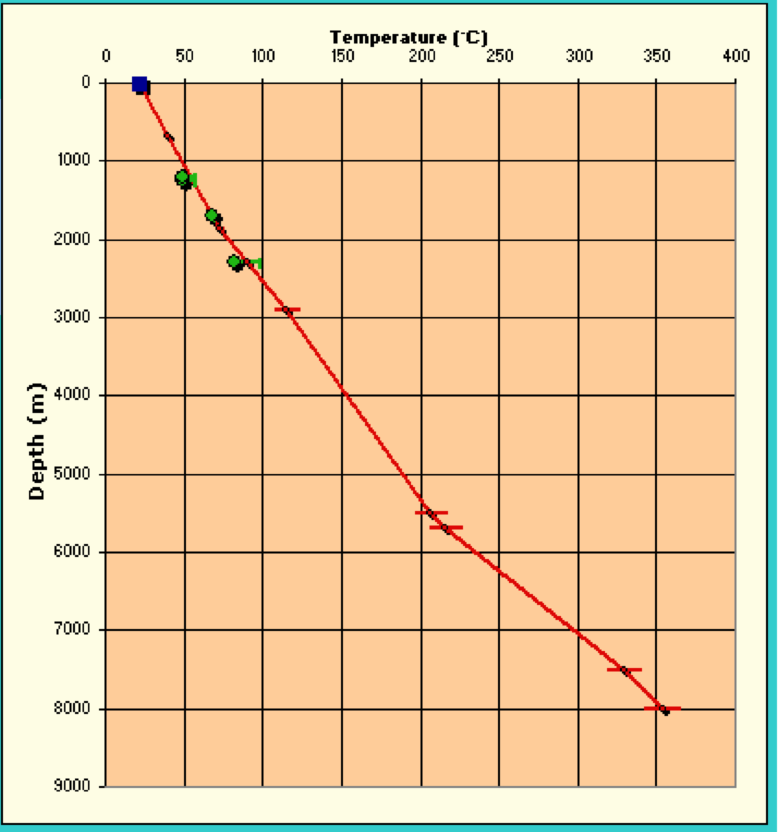


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1095.3	58.76	2	4	horner corrected, depths averaged, corrected date error from source data
1472.5	57.7	0	10.308	BHT, ΔT is 13.25 hours

Number of layers	9	Up to 50	**Heat flow:** 96 ± 2.7 mW/m2
"Depth" to ground level	14	"KB height"	
Total Depth (m)	8000	From drilling datum	
Surface temp. (°C)	21.75	Cataby-1	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		14	3.54 ± 0.30
2	Yarragadee Formation	14	3.54 ± 0.30
3	Cattamarra Coal Measure	680	3.73 ± 0.20
4	Eneabba Formation	1873	2.62 ± 0.44
5	Eneabba Formation	2298	2.62 ± 0.44
6	Leseuer Sandstone	2900	3.56 ± 0.23
7	Woodada Formation	5500	2.79 ± 0.12
8	Kockatea Shale	5700	2.09 ± 0.06
9	Basement	7500	3.20 ± 0.40

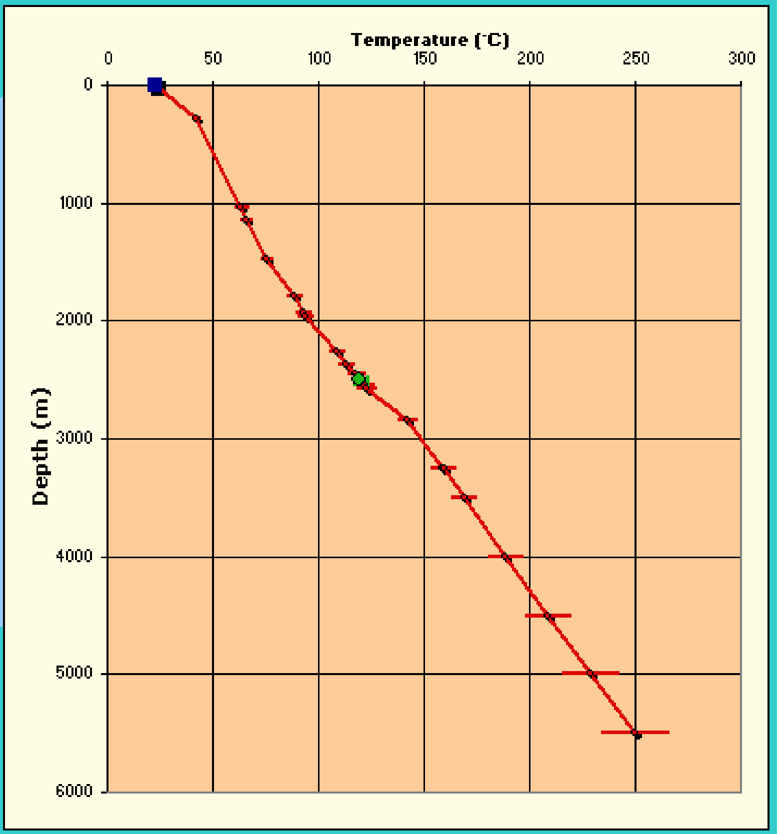


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1692.5	67.5	0	2	DST; 'Open hole test. Conventional testing produced no HC flow, rate calculated rather than measured. Reverse circ. recovered 1.16cm of 38? API oil.
1251.1	48.8	0	8.7577	BHT, ΔT is 6.22 hours
1200	49.44	0	8.4	BHT, ΔT not recorded
2285	82	0	15.995	BHT, ΔT is 7.4 2hours

Number of layers	22	Up to 50	**Heat flow:** 96 ± 3.1 mW/m2
"Depth" to ground level	5	"KB height"	
Total Depth (m)	5500	From drilling datum	
Surface temp. (°C)	22.5	Central Yardarino-1	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		5	1.42 ± 0.14
2	Quaternary	5	1.42 ± 0.14
3	Yarragadee Formation	290	3.54 ± 0.30
4	Cadda Formation	1043	4.14 ± 0.52
5	Cattamarra Coal Measure	1139	3.73 ± 0.20
6	Eneabba Formation	1477	2.62 ± 0.44
7	Lesueur Sandstone	1790	3.56 ± 0.23
8	Woodada Formation	1938	2.79 ± 0.12
9	Kockatea Shale	1970	2.09 ± 0.06
10	Dongara Sandstone	2258	2.92 ± 0.56
11	Carynginia Formation	2364	1.77 ± 0.36
12	Irwin River Coal Measures	2447	3.02 ± 0.50
13	Irwin River Coal Measures	2500	3.02 ± 0.50
14	High Cliff Sandstone	2550	4.40 ± 0.20
15	Holmwood Shale	2580	1.45 ± 0.15
16	Nangetty Formation	2850	2.75 ± 0.48
17	Wicherina Beds	3245	2.75 ± 0.48
18	Basement	3250	3.20 ± 0.40
19	Basement	3500	3.20 ± 0.40
20	Basement	4000	3.20 ± 0.40
21	Basement	4500	3.20 ± 0.40
22	Basement	5000	3.20 ± 0.40

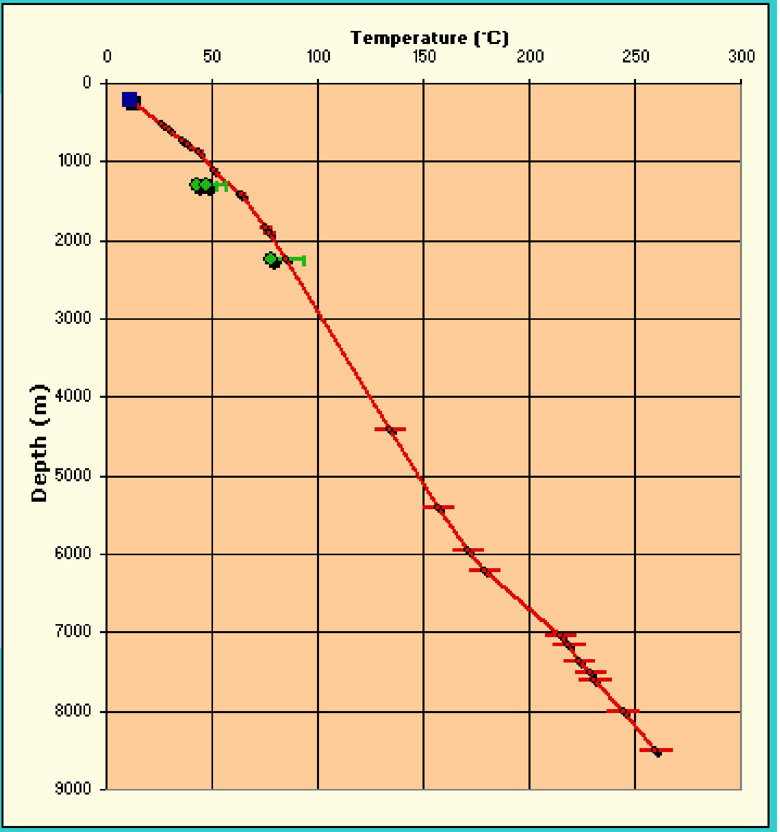


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
2493.3	119.6	2	4	horner corrected, depths averaged

Number of layers	23	Up to 50	Heat flow: 68 ± 1.7 mW/m2
"Depth" to ground level	224	"KB height"	
Total Depth (m)	8500	From drilling datum	
Surface temp. (°C)	11.5	Challenger-1	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		224	1.42 ± 0.14
2	Late Miocene	224	1.42 ± 0.14
3	Eocene	530	1.42 ± 0.14
4	Kings Park Formation	599	1.42 ± 0.14
5	Coolyena Group	740	1.13 ± 0.08
6	Osborne Formation	773	1.13 ± 0.08
7	Leederville Formation	868	2.56 ± 0.18
8	South Perth Shale	1110	1.71 ± 0.14
9	Gage Sandstone	1415	1.93 ± 0.04
10	Jervoise Sandstone	1429	2.58 ± 0.33
11	Otorowiri Formation	1841	2.58 ± 0.33
12	Yarragadee Formation	1907	3.54 ± 0.30
13	Yarragadee Formation	2250	3.54 ± 0.30
14	Cattamarra Coal Measure	4407	3.73 ± 0.20
15	Lesueur Sandstone	5407	3.56 ± 0.23
16	Sabina Sandstone	5959	2.79 ± 0.12
17	Willespie Formation	6222	1.96 ± 0.11
18	Redgate Coal Measures	7047	2.87 ± 0.09
19	Ashbrook Sandstone	7161	3.98 ± 0.24
20	Rosabrook Coal Measure	7365	2.87 ± 0.09
21	Woodynook Sandstone	7519	4.15 ± 0.28
22	Mosswood Formation	7613	2.75 ± 0.42
23	Basement	8000	3.20 ± 0.40

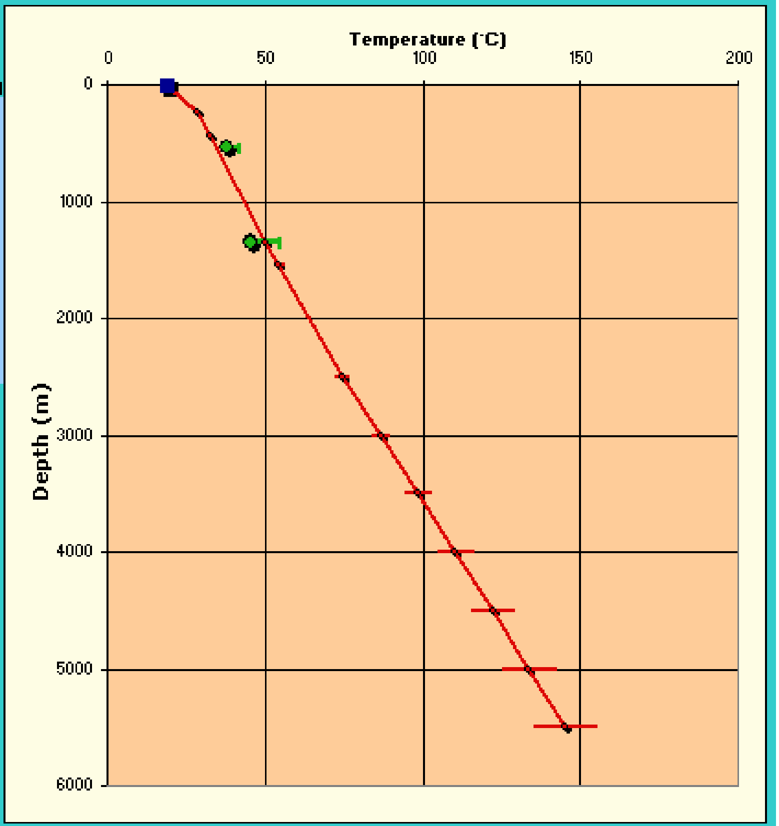


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1303	43.33	0	9.121	BHT, ΔT not recorded
1302	47.78	0	9.114	BHT, ΔT not recorded
2248.5	77.78	0	15.74	BHT, ΔT not recorded
2247	77.78	0	15.729	BHT, ΔT not recorded
2248.5	77.78	0	15.74	BHT, ΔT not recorded
2249	77.78	0	15.743	BHT, ΔT not recorded

Number of layers	12	Up to 50	**Heat flow:**	70	± 2.3 mW/m2
"Depth" to ground level	18	"KB height"			
Total Depth (m)	5500	From drilling datum			
Surface temp. (°C)	19.5	**Chapman Hill-1**			

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		18	1.71 ± 0.14
2	South Perth Shale	18	1.71 ± 0.14
3	Yarragadee Formation	240	3.54 ± 0.30
4	Cattamarra Coal Measure	438	3.73 ± 0.20
5	Cattamarra Coal Measure	1350	3.73 ± 0.20
6	Lesueur Sandstone	1550	3.56 ± 0.23
7	Basement	2500	3.20 ± 0.40
8	Basement	3000	3.20 ± 0.40
9	Basement	3500	3.20 ± 0.40
10	Basement	4000	3.20 ± 0.40
11	Basement	4500	3.20 ± 0.40
12	Basement	5000	3.20 ± 0.40

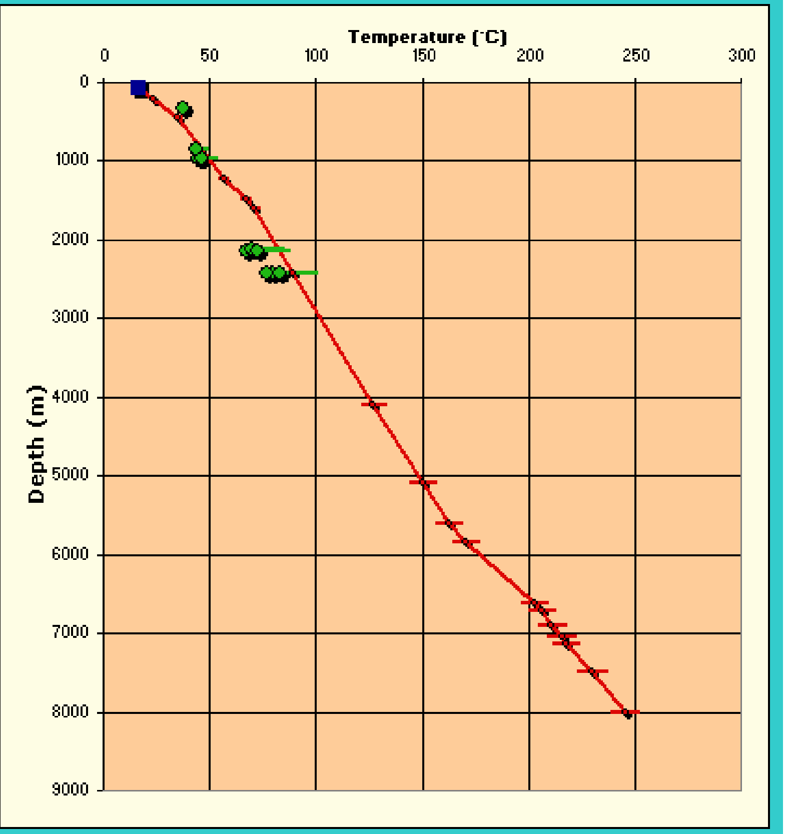


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
533	38	0	3.731	BHT, ΔT is 4.25 hours
1344	45.5	0	9.408	BHT, ΔT is 6 hours
1349	45.5	0	9.443	BHT, ΔT is 5 hours

Number of layers	18	Up to 50	**Heat flow:**	**68 ± 1.6 mW/m2**
"Depth" to ground level	73	"KB height"		
Total Depth (m)	8000	From driling datum		
Surface temp. (°C)	17	**Charlotte-1**		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		73	1.42 ± 0.14
2	Tertiary	73	1.42 ± 0.14
3	Stark Bay Formation	209	1.42 ± 0.14
4	Leederville Formation	450	2.56 ± 0.18
5	South Perth Shale	1230	1.71 ± 0.14
6	Gage Sandstone	1487	1.93 ± 0.04
7	Yarragadee Formation	1593	3.54 ± 0.30
8	Yarragadee Formation	2435	3.54 ± 0.30
9	Cattamarra Coal Measure	4093	3.73 ± 0.20
10	Lesueur Sandstone	5093	3.56 ± 0.23
11	Sabina Sandstone	5605	2.79 ± 0.12
12	Willespie Formation	5849	1.96 ± 0.11
13	Redgate Coal Measures	6615	2.87 ± 0.09
14	Ashbrook Sandstone	6721	3.98 ± 0.24
15	Rosabrook Coal Measure	6911	2.87 ± 0.09
16	Woodynook Sandstone	7054	4.15 ± 0.28
17	Mosswood Formation	7141	2.75 ± 0.42
18	Basement	7500	3.20 ± 0.40

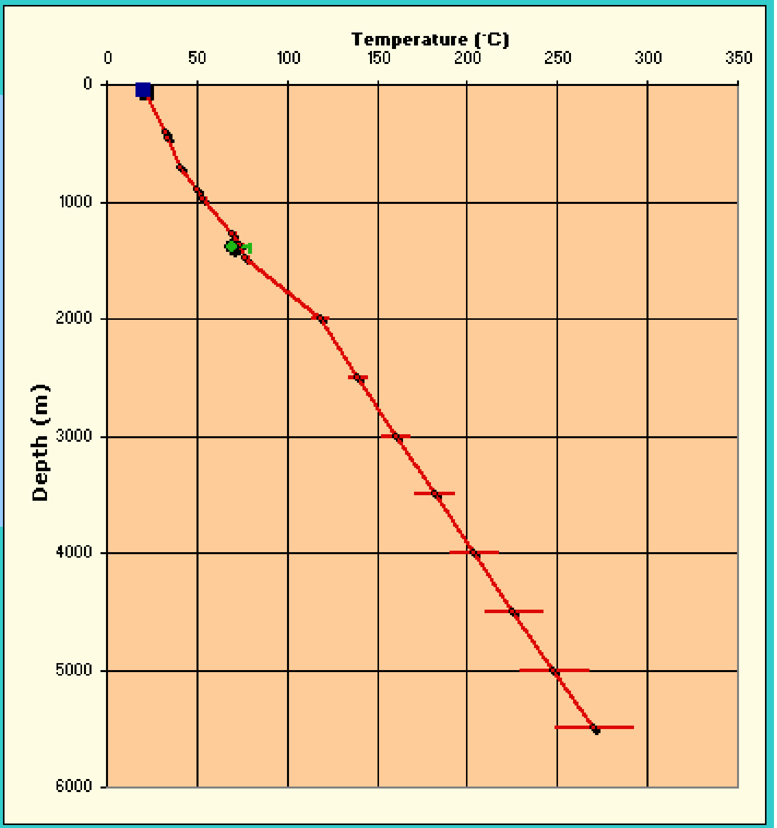


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
327.96	37.78	0	2.2957	BHT, ΔT not recorded
965	44.44	0	6.755	BHT, ΔT not recorded
962.25	46.67	0	6.7358	BHT, ΔT not recorded
844.91	43.33	0	5.9144	BHT, ΔT not recorded
2132.38	67.22	0	14.927	BHT, ΔT not recorded
2131.16	70	0	14.918	BHT, ΔT not recorded
2133.29	72.22	0	14.933	BHT, ΔT not recorded
2432.91	76.67	0	17.03	BHT, ΔT not recorded
2429.86	79.44	0	17.009	BHT, ΔT not recorded
2432.61	83.33	0	17.028	BHT, ΔT not recorded
2432.3	76.67	0	17.026	BHT, ΔT not recorded

Number of layers	18	Up to 50	**Heat flow:**	110	± 3.8 mW/m2
"Depth" to ground level	42	"KB height"			
Total Depth (m)	5500	From drilling datum			
Surface temp. (°C)	20	**Cliff Head-1**			

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		42	1.42 ± 0.14
2	Tertiary/Quaternary/Recen	42	1.42 ± 0.14
3	Yarragadee Formation	65	3.54 ± 0.30
4	Cadda Formation	406	4.14 ± 0.52
5	Cattamarra Coal Measure:	459	3.73 ± 0.20
6	Eneabba Formation	703	2.62 ± 0.44
7	Woodada Formation	901	2.79 ± 0.12
8	Kockatea Shale	981	2.09 ± 0.06
9	Irwin River Coal Measures	1278	3.02 ± 0.50
10	High Cliff Sandstone	1376	4.40 ± 0.20
11	Holmwood Shale	1475	1.45 ± 0.15
12	Basement	2000	3.20 ± 0.40
13	Basement	2500	3.20 ± 0.40
14	Basement	3000	3.20 ± 0.40
15	Basement	3500	3.20 ± 0.40
16	Basement	4000	3.20 ± 0.40
17	Basement	4500	3.20 ± 0.40
18	Basement	5000	3.20 ± 0.40

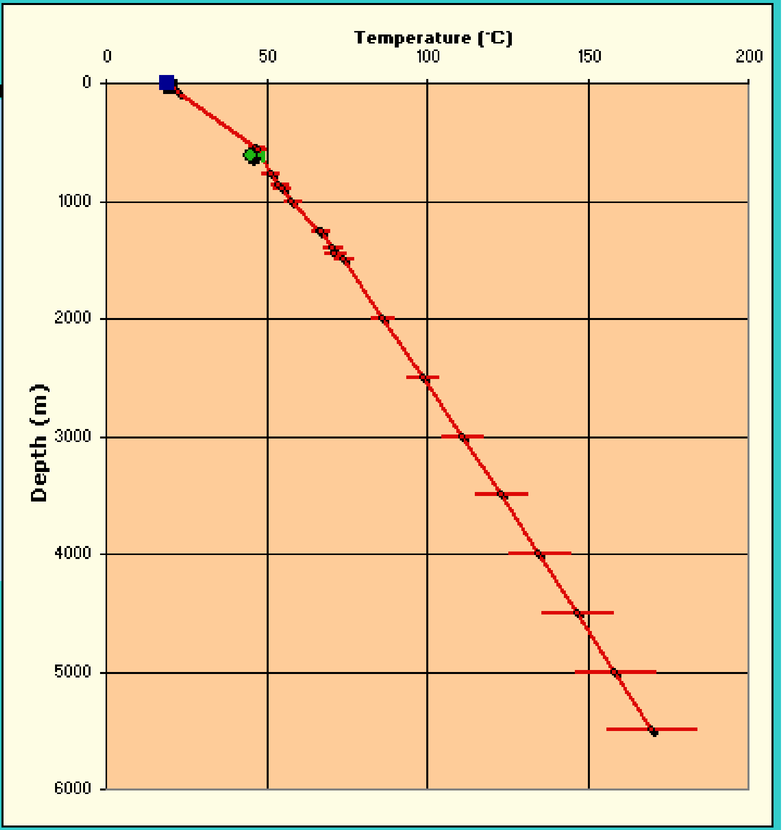


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1390	70	0	9.73	BHT, ΔT not recorded

Number of layers	20	Up to 50	**Heat flow:**	72 ± 2.4 mW/m2
"Depth" to ground level	0	"KB height"		
Total Depth (m)	5500	From driling datum		
Surface temp. (°C)	19	Cliff Head-13H		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		0	1.42 ± 0.14
2	Quaternary	74	1.42 ± 0.14
3	Cadda Formation	544	4.14 ± 0.52
4	Cattamarra Coal Measure	573	3.73 ± 0.20
5	Eneabba Formation	768	2.62 ± 0.44
6	Lesueur Sandstone	865	3.56 ± 0.23
7	Woodada Formation	893	2.79 ± 0.12
8	Kockatea Shale	1015	2.09 ± 0.06
9	Irwin River Coal Measures	1252	3.02 ± 0.50
10	Irwin River Coal Measures	1267	3.02 ± 0.50
11	High Cliff Sandstone	1400	4.40 ± 0.20
12	Holmwood Shale	1450	1.45 ± 0.15
13	Basement	1500	3.20 ± 0.40
14	Basement	2000	3.20 ± 0.40
15	Basement	2500	3.20 ± 0.40
16	Basement	3000	3.20 ± 0.40
17	Basement	3500	3.20 ± 0.40
18	Basement	4000	3.20 ± 0.40
19	Basement	4500	3.20 ± 0.40
20	Basement	5000	3.20 ± 0.40

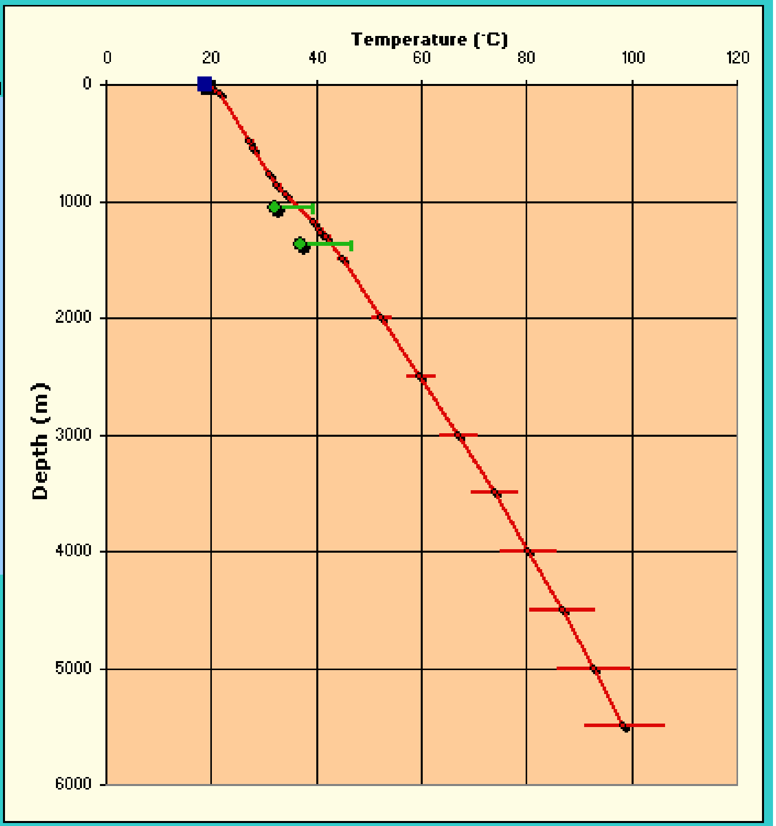


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
621	45	0	4.347	BHT, ΔT not recorded

Number of layers	20	Up to 50	Heat flow:	48 ± 1.6 mW/m2
"Depth" to ground level	0	"KB height"		
Total Depth (m)	5500	From drilling datum		
Surface temp. (°C)	19	Cliff Head-3		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	tertiary to recent	0	1.42 ± 0.14
2	tertiary to recent	39	1.42 ± 0.14
3	Yarragadee Formation	80	3.54 ± 0.30
4	Cadda Formation	491	4.14 ± 0.52
5	Cattamarra Coal Measure	545	3.73 ± 0.20
6	Eneabba Formation	774	2.62 ± 0.44
7	Woodada Formation	866	2.79 ± 0.12
8	Kockatea Shale	950	2.09 ± 0.06
9	Irwin River Coal Measures	1177	3.02 ± 0.50
10	High Cliff Sandstone	1243	4.40 ± 0.20
11	Holmwood Shale	1278	1.45 ± 0.15
12	Basement	1311	3.20 ± 0.40
13	Basement	1500	3.20 ± 0.40
14	Basement	2000	3.20 ± 0.40
15	Basement	2500	3.20 ± 0.40
16	Basement	3000	3.20 ± 0.40
17	Basement	3500	3.20 ± 0.40
18	Basement	4000	3.20 ± 0.40
19	Basement	4500	3.20 ± 0.40
20	Basement	5000	3.20 ± 0.40

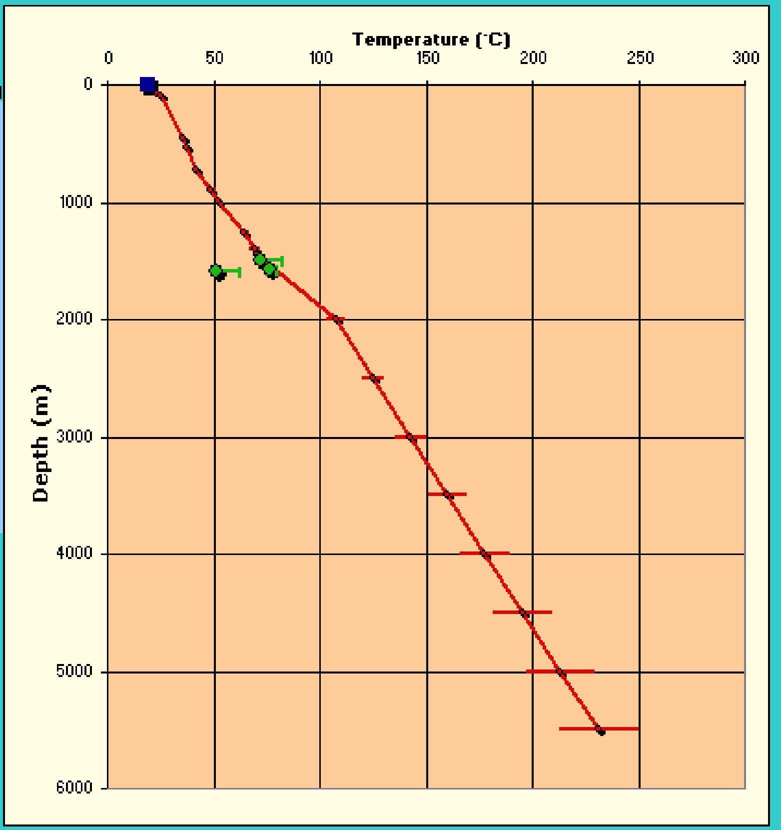


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1051	32.15	0	7.357	BHT, ΔT not recorded
1375	37	0	9.625	BHT, ΔT not recorded

Number of layers	18	Up to 50	Heat flow:	94 ± 3.2 mW/m2
"Depth" to ground level	0	"KB height"		
Total Depth (m)	5500	From drilling datum		
Surface temp. (°C)	19	Cliff Head-4		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	tertiary to recent	0	1.42 ± 0.14
2	tertiary to recent	45	1.42 ± 0.14
3	Yarragadee Formation	98	3.54 ± 0.30
4	Cadda Formation	464	4.14 ± 0.52
5	Cattamarra Coal measure	538	3.73 ± 0.20
6	Eneabba Formation	717	2.62 ± 0.44
7	Woodada Formation	904	2.79 ± 0.12
8	Kockatea Shale	993	2.09 ± 0.06
9	Irwin River Coal Measures	1267	3.02 ± 0.50
10	High Cliff Sandstone	1397	4.40 ± 0.20
11	Holmwood Shale	1454	1.45 ± 0.15
12	Basement	2000	3.20 ± 0.40
13	Basement	2500	3.20 ± 0.40
14	Basement	3000	3.20 ± 0.40
15	Basement	3500	3.20 ± 0.40
16	Basement	4000	3.20 ± 0.40
17	Basement	4500	3.20 ± 0.40
18	Basement	5000	3.20 ± 0.40

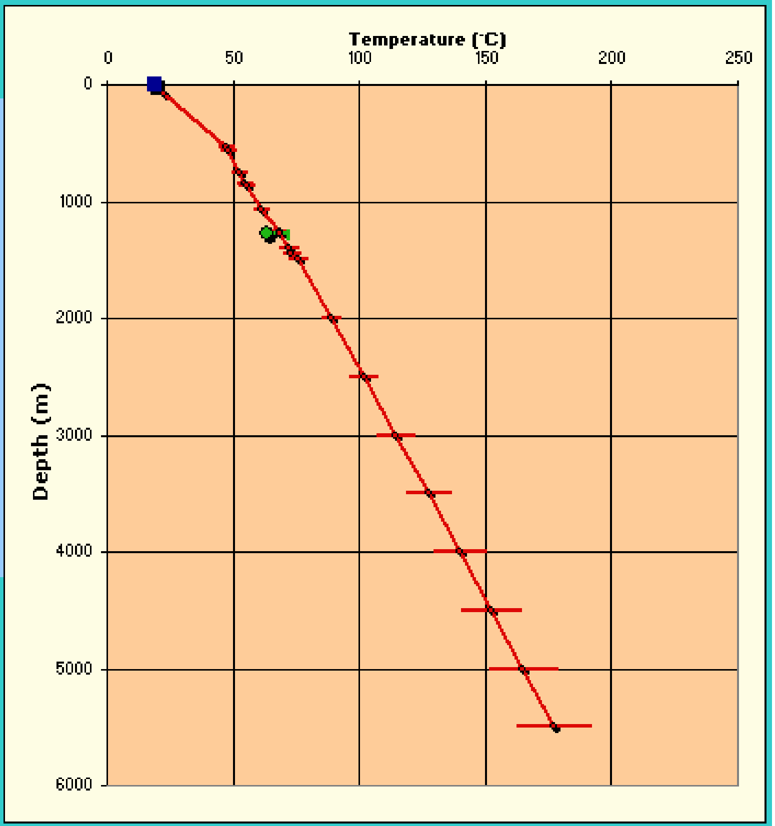


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1582.44	76.64	1	3	Horner corrected, depths averaged
1493	72	0	10.451	BHT, ΔT is 23 hours
1503.5	72	0	10.525	BHT, ΔT is 33.17 hours
1598	51	0	11.186	BHT, ΔT not recorded

Number of layers	20	Up to 50	**Heat flow:**	75 ± 2.5 mW/m2
"Depth" to ground level	0	"KB height"		
Total Depth (m)	5500	From drilling datum		
Surface temp. (°C)	19	Cliff Head-9H		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	Quaternary	0	1.42 ± 0.14
2	Quaternary	74	1.42 ± 0.14
3	Cadda Formation	540	4.14 ± 0.52
4	Cattamarra Coal Measure	560	3.73 ± 0.20
5	Eneabba Formation	756	2.62 ± 0.44
6	Lesueur Sandstone	843	3.56 ± 0.23
7	Woodada Formation	874	2.79 ± 0.12
8	Kockatea Shale	1069	2.09 ± 0.06
9	Irwin River Coal Measures	1259	3.02 ± 0.50
10	Irwin River Coal Measures	1276	3.02 ± 0.50
11	High Cliff Sandstone	1400	4.40 ± 0.20
12	Holmwood Shale	1450	1.45 ± 0.15
13	Basement	1500	3.20 ± 0.40
14	Basement	2000	3.20 ± 0.40
15	Basement	2500	3.20 ± 0.40
16	Basement	3000	3.20 ± 0.40
17	Basement	3500	3.20 ± 0.40
18	Basement	4000	3.20 ± 0.40
19	Basement	4500	3.20 ± 0.40
20	Basement	5000	3.20 ± 0.40

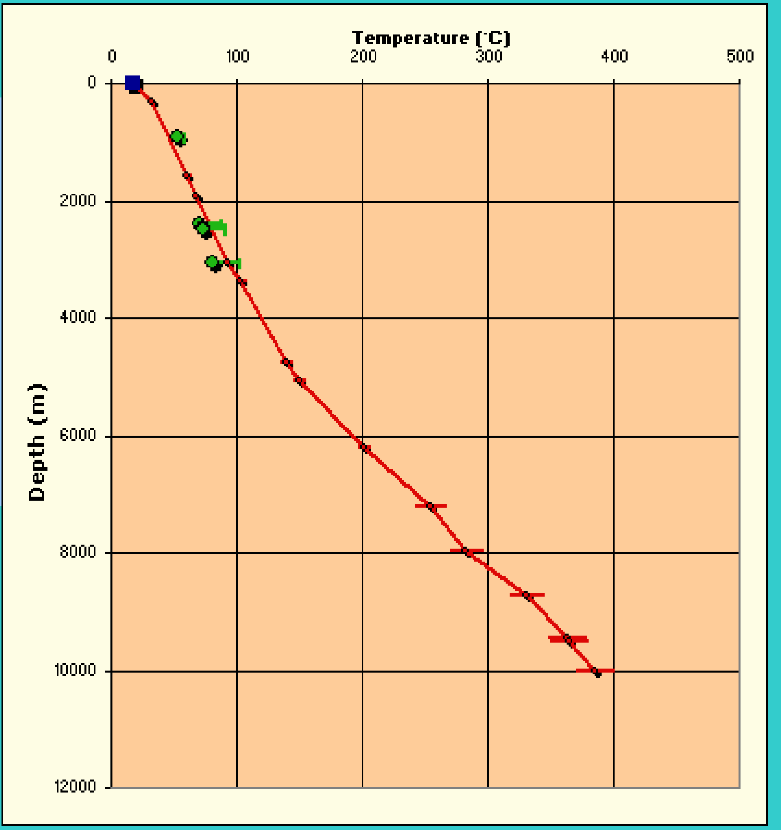


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1276	63.51	0	8.932	BHT, ΔT not recorded

Number of layers	17	Up to 50	Heat flow:	76 ± 3.1 mW/m2
"Depth" to ground level	8	"KB height"		
Total Depth (m)	10000	From drilling datum		
Surface temp. (°C)	18	Cockburn-1		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		8	1.42 ± 0.14
2	Coastal Limestone	8	1.42 ± 0.14
3	South Perth Shale	40	1.71 ± 0.14
4	Yarragadee Formation	313	3.54 ± 0.30
5	Cadda Formation	1566	4.14 ± 0.52
6	Catamarra Coal Measure:	1913	3.73 ± 0.20
7	Catamarra Coal Measure:	3054	3.73 ± 0.20
8	Eneabba Formation	3060	2.62 ± 0.44
9	Leseuer Sandstone	3370	3.56 ± 0.23
10	Woodada Formation	4749	2.79 ± 0.12
11	Kockatea Shale	5056	2.09 ± 0.06
12	Carynginia Formation	6206	1.77 ± 0.36
13	Irwin River Coal Measure:	7202	3.02 ± 0.50
14	Holmwood Shale	7968	1.45 ± 0.15
15	Nangetty Formation	8734	2.75 ± 0.48
16	Wicherina Beds	9461	2.75 ± 0.48
17	Basement	9500	3.20 ± 0.40

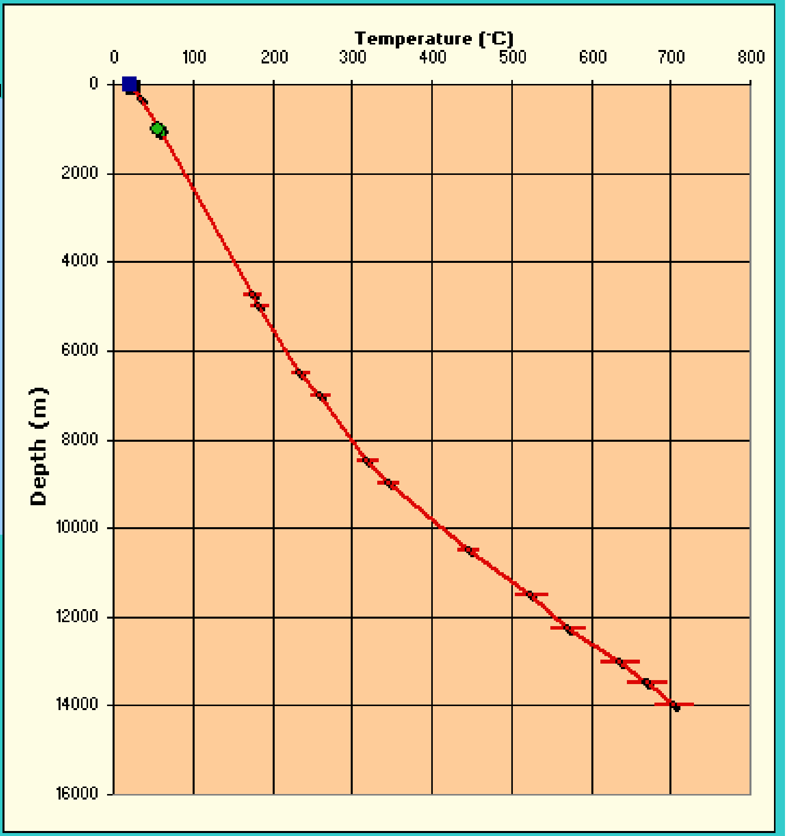


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
912	52.22	0	6.384	BHT, ΔT not recorded
910.13	52.22	0	6.3709	BHT, ΔT not recorded
913.18	52.22	0	6.3923	BHT, ΔT not recorded
2399.38	71.11	0	16.796	BHT, ΔT not recorded
2471.32	73.33	0	17.299	BHT, ΔT not recorded
2473.15	73.33	0	17.312	BHT, ΔT not recorded
3048.61	81.11	0	21.34	BHT, ΔT not recorded
3044.65	81.11	0	21.313	BHT, ΔT not recorded
3040.07	81.11	0	21.28	BHT, ΔT not recorded
3043.73	81.11	0	21.306	BHT, ΔT not recorded

Number of layers	18	Up to 50	**Heat flow:**	91 ± 3.2 mW/m2
"Depth" to ground level	3	"KB height"		
Total Depth (m)	14000	From drilling datum		
Surface temp. (°C)	21.75	**Cypress Hill-1**		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		3	1.42 ± 0.14
2	Quaternary	3	1.42 ± 0.14
3	Leederville Formation	38	2.56 ± 0.18
4	Parmelia Group	346	2.58 ± 0.33
5	Parmelia Group	989	2.58 ± 0.33
6	Yarragadee Formation	1000	3.54 ± 0.30
7	Cadda Formation	4750	4.14 ± 0.52
8	Cattamarra Coal Measure	5000	3.73 ± 0.20
9	Eneabba Formation	6500	2.62 ± 0.44
10	Lesueur Sandstone	7000	3.56 ± 0.23
11	Woodada Formation	8500	2.79 ± 0.12
12	Kockatea Shale	9000	2.09 ± 0.06
13	Carynginia Formation	10500	1.77 ± 0.36
14	Irwin River Coal Measures	11500	3.02 ± 0.50
15	Holmwood Shale	12250	1.45 ± 0.15
16	Nangetty Formation	13000	2.75 ± 0.48
17	Wicherina Beds	13460	2.75 ± 0.48
18	Basement	13500	3.20 ± 0.40

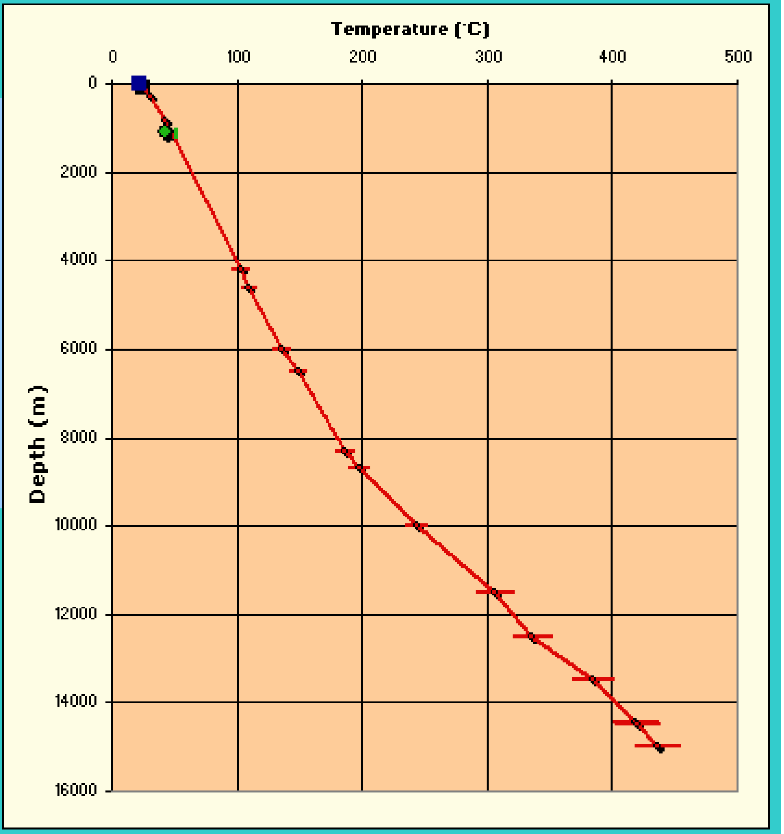


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
989.3	57.22	0	6.9251	BHT, ΔT is 8.1 hours
989.3	57.22	0	6.9251	BHT, ΔT is 12.63 hours
989.3	57.22	0	6.9251	BHT, ΔT is 20.12 hours
989.3	55.56	0	6.9251	BHT, ΔT is 28.72 hours

Number of layers	17	Up to 50	**Heat flow: 57 ± 2.3 mW/m2**
"Depth" to ground level	0	"KB height"	
Total Depth (m)	15000	From drilling datum	
Surface temp. (°C)	21.75	**Dandargan-1**	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	Dandaragan Sandstone	0	1.13 ± 0.08
2	Leederville Formation	75	2.56 ± 0.18
3	Parmelia Group	303	2.58 ± 0.33
4	Yarragadee Formation	858	3.54 ± 0.30
5	Yarragadee Formation	1103	3.54 ± 0.30
6	Cadda Formation	4200	4.14 ± 0.52
7	Cattamarra Coal Measure	4600	3.73 ± 0.20
8	Eneabba Formation	6000	2.62 ± 0.44
9	Lesueur Sandstone	6500	3.56 ± 0.23
10	Woodada Formation	8300	2.79 ± 0.12
11	Kockatea Shale	8700	2.09 ± 0.06
12	Carynginia Formation	10000	1.77 ± 0.36
13	Irwin River Coal Measures	11500	3.02 ± 0.50
14	Holmwood Shale	12500	1.45 ± 0.15
15	Nangetty Formation	13500	2.75 ± 0.48
16	Wicherina Beds	14450	2.75 ± 0.48
17	Basement	14500	3.20 ± 0.40

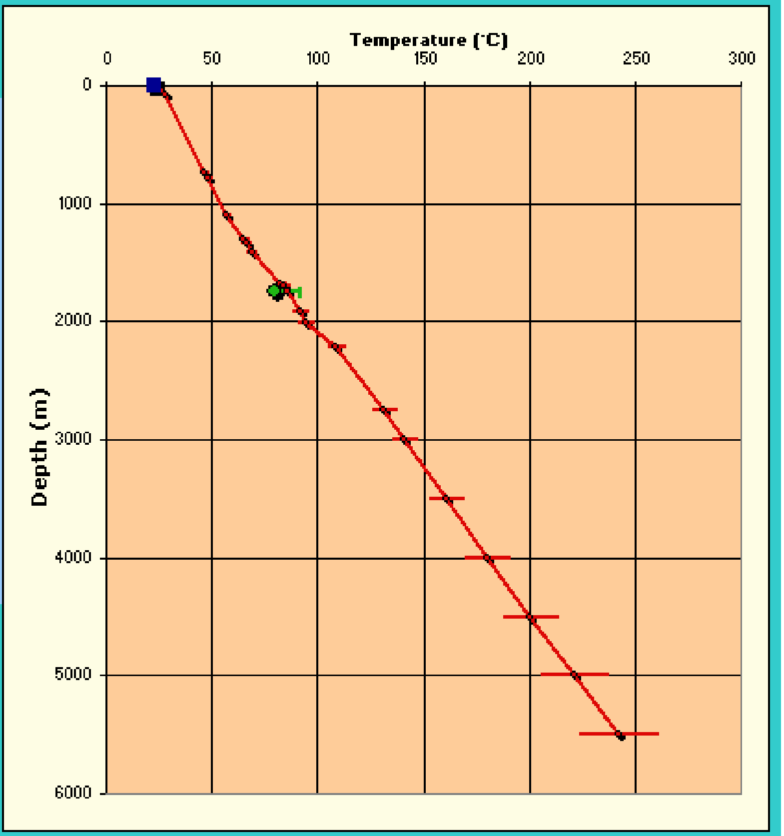


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1088	43.5	0	7.616	BHT, ΔT is 10.97 hours
1088	43.5	0	7.616	BHT, ΔT is 5.1 hours

Number of layers	21	Up to 50	Heat flow:	99 ± 3.4 mW/m2
"Depth" to ground level	0	"KB height"		
Total Depth (m)	5500	From drilling datum		
Surface temp. (°C)	22.5	Dongara-02		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	Coastal limestone	0	1.42 ± 0.14
2	Yarragadee Formation	78	3.54 ± 0.30
3	Cadda Formation	732	4.14 ± 0.52
4	Cattamarra Coal Measure	792	3.73 ± 0.20
5	Eneabba Formation	1106	2.62 ± 0.44
6	Lesueur Sandstone	1296	3.56 ± 0.23
7	Woodada Formation	1341	2.79 ± 0.12
8	Kockatea Shale	1414	2.09 ± 0.06
9	Carynginia Formation	1682	1.77 ± 0.36
10	Irwin River Coal Measures	1704	3.02 ± 0.50
11	Irwin River Coal Measures	1745	3.02 ± 0.50
12	High Cliff Sandstone	1916	4.40 ± 0.20
13	Holmwood Shale	2016	1.45 ± 0.15
14	Nangetty Formation	2216	2.75 ± 0.48
15	Wicherina Beds	2745	2.75 ± 0.48
16	Basement	2750	3.20 ± 0.40
17	Basement	3000	3.20 ± 0.40
18	Basement	3500	3.20 ± 0.40
19	Basement	4000	3.20 ± 0.40
20	Basement	4500	3.20 ± 0.40
21	Basement	5000	3.20 ± 0.40

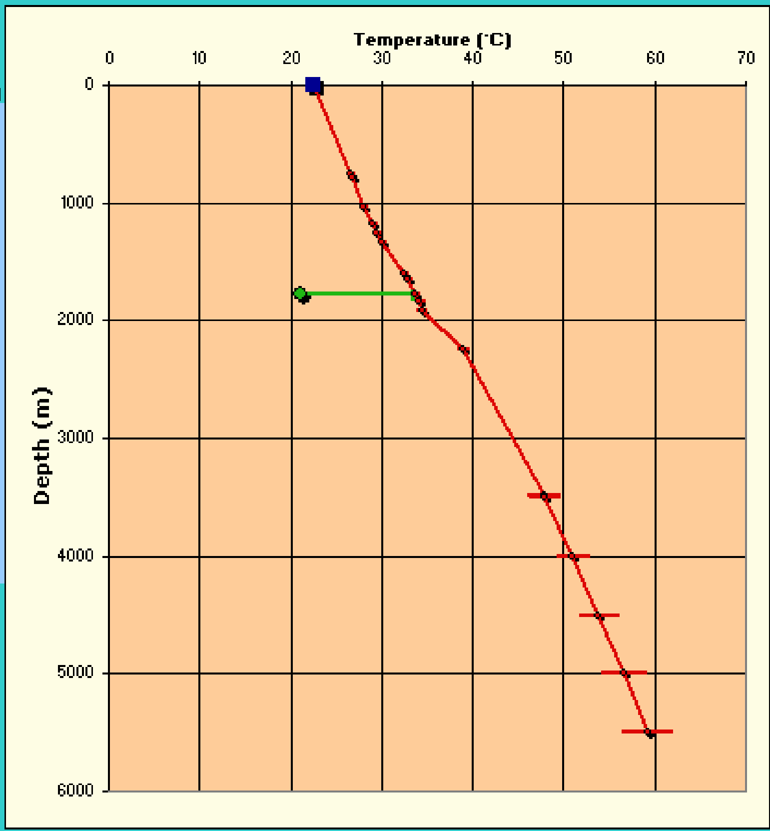


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1743.76	79.44	0	12.206	BHT, ΔT not recorded
1741.02	79.44	0	12.187	BHT, ΔT not recorded

Number of layers	20	Up to 50	**Heat flow:**	19 ± 0.9 mW/m2
"Depth" to ground level	0	"KB height"		
Total Depth (m)	5500	From drilling datum		
Surface temp. (°C)	22.5	Dongara-03		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	Coastal Limestone	0	1.42 ± 0.14
2	Yarragadee Formation	1	3.54 ± 0.30
3	Cadda Formation	752	4.14 ± 0.52
4	Cattamarra Coal Measure	785	3.73 ± 0.20
5	Eneabba Formation	1038	2.62 ± 0.44
6	Lesueur Sandstone	1177	3.56 ± 0.23
7	Woodada Formation	1250	2.79 ± 0.12
8	Kockatea Shale	1335	2.09 ± 0.06
9	Dongara Sandstone	1601	2.92 ± 0.56
10	Carynginia Formation	1607	1.77 ± 0.36
11	Irwin River Coal Measures	1651	3.02 ± 0.50
12	Irwin River Coal Measures	1775	3.02 ± 0.50
13	High Cliff Sandstone	1840	4.40 ± 0.20
14	Holmwood Shale	1909	1.45 ± 0.15
15	Nangetty Formation	2250	2.75 ± 0.48
16	Wicherina Beds	3488	2.75 ± 0.48
17	Basement	3500	3.20 ± 0.40
18	Basement	4000	3.20 ± 0.40
19	Basement	4500	3.20 ± 0.40
20	Basement	5000	3.20 ± 0.40

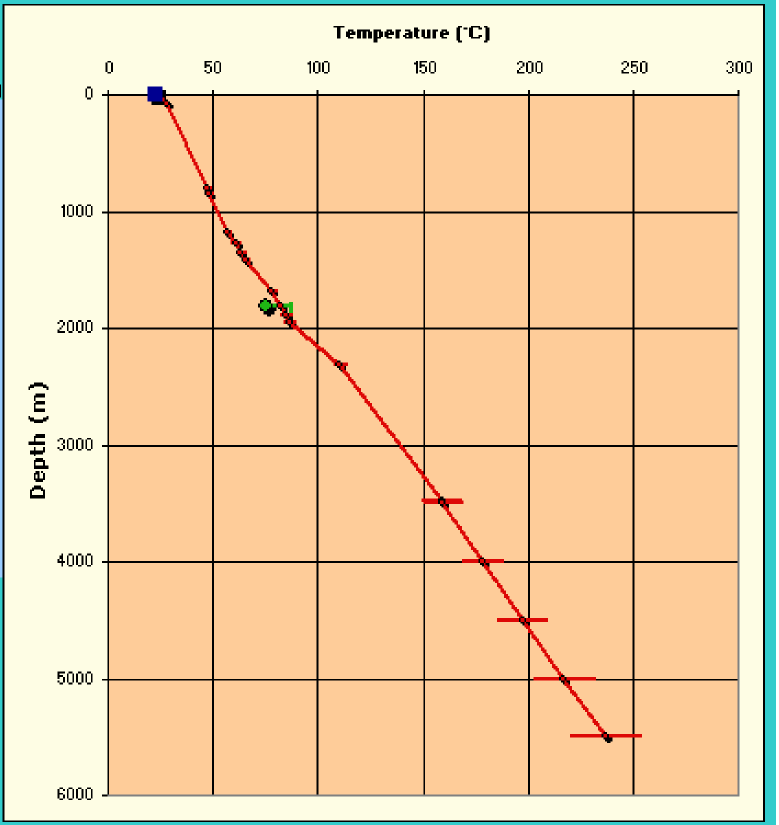


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1770.89	21.11	0	12.396	BHT, ΔT not recorded

Number of layers	20	Up to 50	Heat flow:	93 ± 4.4 mW/m2
"Depth" to ground level	0	"KB height"		
Total Depth (m)	5500	From drilling datum		
Surface temp. (°C)	22.5	Dongara-04		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		0	1.42 ± 0.14
2	Coastal limestone	0	1.42 ± 0.14
3	Yarragadee Formation	82	3.54 ± 0.30
4	Cadda Formation	804	4.14 ± 0.52
5	Cattamarra Coal Measure	849	3.73 ± 0.20
6	Eneabba Formation	1178	2.62 ± 0.44
7	Lesueur Sandstone	1274	3.56 ± 0.23
8	Woodada Formation	1362	2.79 ± 0.12
9	Kockatea Shale	1421	2.09 ± 0.06
10	Dongara Sandstone	1685	2.92 ± 0.56
11	Irwin River Coal Measures	1692	3.02 ± 0.50
12	Irwin River Coal Measures	1818	3.02 ± 0.50
13	High Cliff Sandstone	1887	4.40 ± 0.20
14	Holmwood Shale	1954	1.45 ± 0.15
15	Nangetty Formation	2310	2.75 ± 0.48
16	Wicherina Beds	3488	2.75 ± 0.48
17	Basement	3500	3.20 ± 0.40
18	Basement	4000	3.20 ± 0.40
19	Basement	4500	3.20 ± 0.40
20	Basement	5000	3.20 ± 0.40

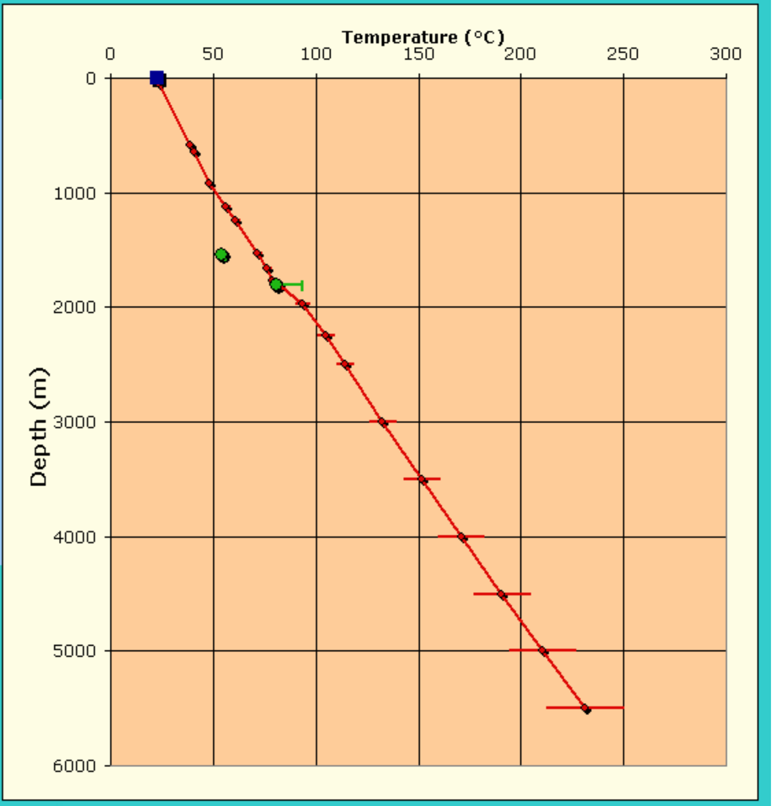


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1807.16	75	0	12.65	BHT, ΔT not recorded
1813.86	75	0	12.697	BHT, ΔT not recorded
1816.61	75	0	12.716	BHT, ΔT not recorded
1816.3	75	0	12.714	BHT, ΔT not recorded
1816.3	75	0	12.714	BHT, ΔT not recorded
1809.29	75	0	12.665	BHT, ΔT not recorded

Number of layers	20	Up to 50	Heat flow:	99 ± 3.3 mW/m2
"Depth" to ground level	5	"KB height"		
Total Depth (m)	5500	From driling datum		
Surface temp. (°C)	22.5	Dongara-05		

	Formation Name	Top	Cond @ 25°C (W/mK)
1		5	3.54 ± 0.30
2	Yarragadee Formation	46	3.54 ± 0.30
3	Cadda Formation	587	4.14 ± 0.52
4	Cattamarra Coal Measures	647	3.73 ± 0.20
5	Eneabba Formation	926	2.62 ± 0.44
6	Woodada Formation	1126	2.79 ± 0.12
7	Kockatea Shale	1249	2.79 ± 0.15
8	Irwin River Coal Measures	1531	3.02 ± 0.50
9	High Cliff Sandstone	1661	4.40 ± 0.20
10	Holmwood Shale	1768	1.45 ± 0.15
11	Holmwood Shale	1808	1.45 ± 0.15
12	Nangetty Formation	1968	2.75 ± 0.48
13	Wicherina Beds	2250	2.75 ± 0.48
14	Basement	2250	3.20 ± 0.40
15	Basement	2500	3.20 ± 0.40
16	Basement	3000	3.20 ± 0.40
17	Basement	3500	3.20 ± 0.40
18	Basement	4000	3.20 ± 0.40
19	Basement	4500	3.20 ± 0.40
20	Basement	5000	3.20 ± 0.40

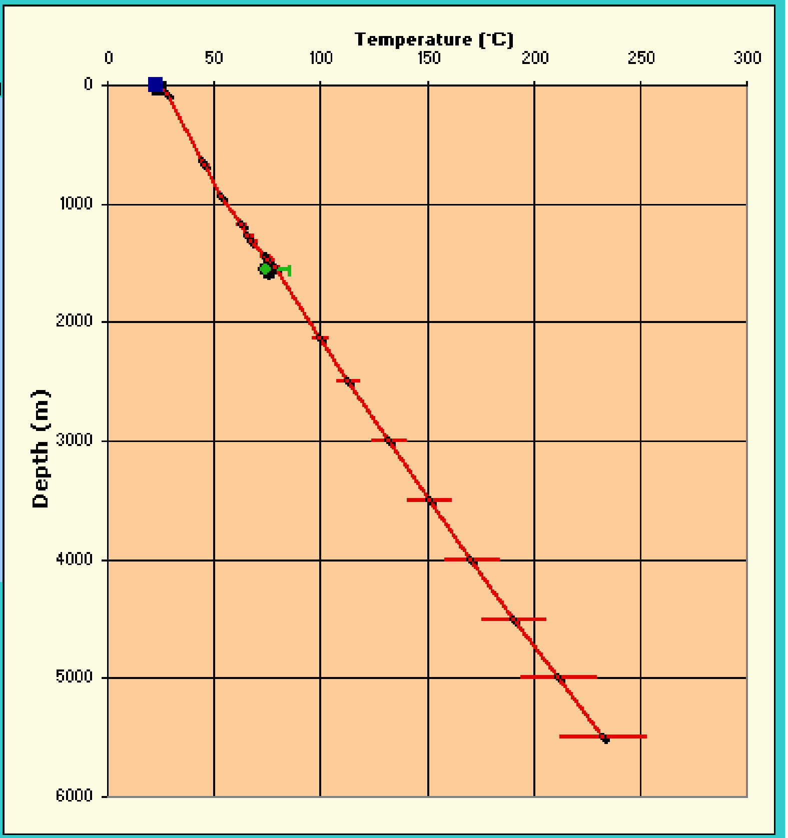


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1545.95	54.4	0	2	DST actual; 'Cased hole test. Tool opened immediately, very strong blow. Water cushion to surface in 12 minutes at 10 gallons/minute through ?" surface choke. Recovered 7.1 bbls water cushion, 2.8 bbls muddy water, 60 bbls formation water with strong sulphurous odour.
1807.46	81.11	0	12.652	BHT, ΔT not recorded

Number of layers	20	Up to 50	Heat flow:	102 ± 3.5 mW/m2
"Depth" to ground level	0	"KB height"		
Total Depth (m)	5500	From driling datum		
Surface temp. (°C)	22.5	Dongara-06		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	Coastal Limestone	0	1.42 ± 0.14
2	Yarragadee Formation	71	3.54 ± 0.30
3	Cadda Formation	639	4.14 ± 0.52
4	Cattamarra Coal Measure	678	3.73 ± 0.20
5	Eneabba Formation	943	2.62 ± 0.44
6	Lesueur Sandstone	1179	3.56 ± 0.23
7	Woodada Formation	1280	2.79 ± 0.12
8	Kockatea Shale	1323	2.09 ± 0.06
9	Dongara Sandstone	1448	2.92 ± 0.56
10	Holmwood Shale	1460	1.45 ± 0.15
11	Nangetty Formation	1474	2.75 ± 0.48
12	Wicherina Beds	1538	2.75 ± 0.48
13	Basement	1540	3.20 ± 0.40
14	Basement	2140	3.20 ± 0.40
15	Basement	2500	3.20 ± 0.40
16	Basement	3000	3.20 ± 0.40
17	Basement	3500	3.20 ± 0.40
18	Basement	4000	3.20 ± 0.40
19	Basement	4500	3.20 ± 0.40
20	Basement	5000	3.20 ± 0.40

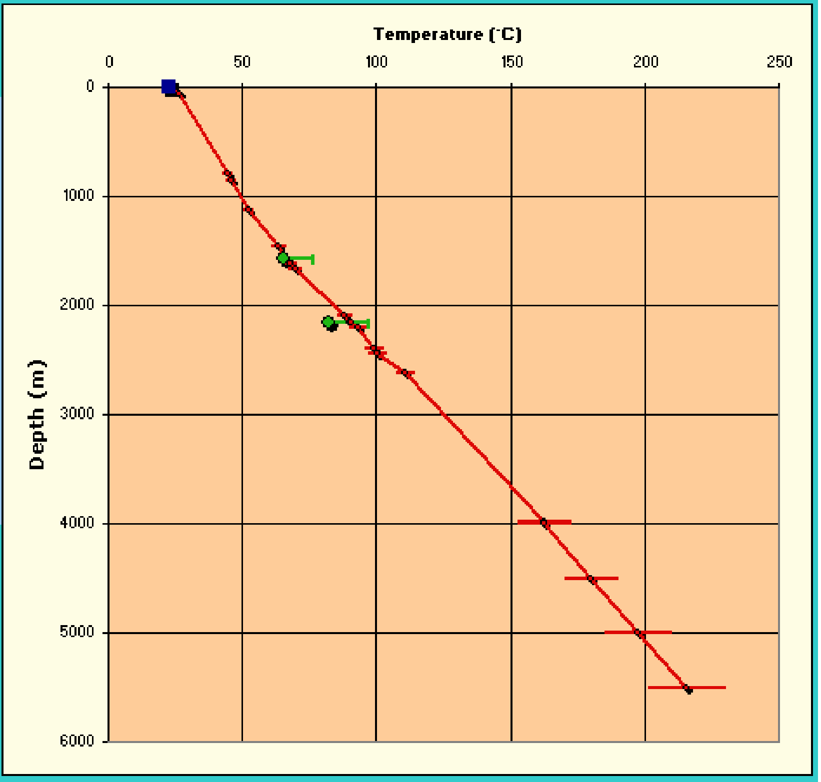


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1554.79	74.44	0	10.884	BHT, ΔT not recorded

Number of layers	19	Up to 50	Heat flow: 85 ± 4.5 mW/m2
"Depth" to ground level	0	"KB height"	
Total Depth (m)	5500	From drilling datum	
Surface temp. (°C)	22.5	Dongara-07	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	Coastal limestone	0	1.42 ± 0.14
2	Yarragadee Formation	69	3.54 ± 0.30
3	Cadda Formation	790	4.14 ± 0.52
4	Cattamarra Coal Measure	862	3.73 ± 0.20
5	Eneabba Formation	1122	2.62 ± 0.44
6	Lesueur Sandstone	1454	3.56 ± 0.23
7	Woodada Formation	1612	2.79 ± 0.12
8	Kockatea Shale	1671	2.09 ± 0.06
9	Wagina Sandstone	2094	2.92 ± 0.56
10	Carynginia Formation	2156	1.77 ± 0.36
11	Carynginia Formation	2164	1.77 ± 0.36
12	Irwin River Coal Measures	2210	3.02 ± 0.50
13	High Cliff Sandstone	2390	4.40 ± 0.20
14	Holmwood Shale	2450	1.45 ± 0.15
15	Nangetty Formation	2620	2.75 ± 0.48
16	Wicherina Beds	3990	2.75 ± 0.48
17	Basement	4000	3.20 ± 0.40
18	Basement	4500	3.20 ± 0.40
19	Basement	5000	3.20 ± 0.40

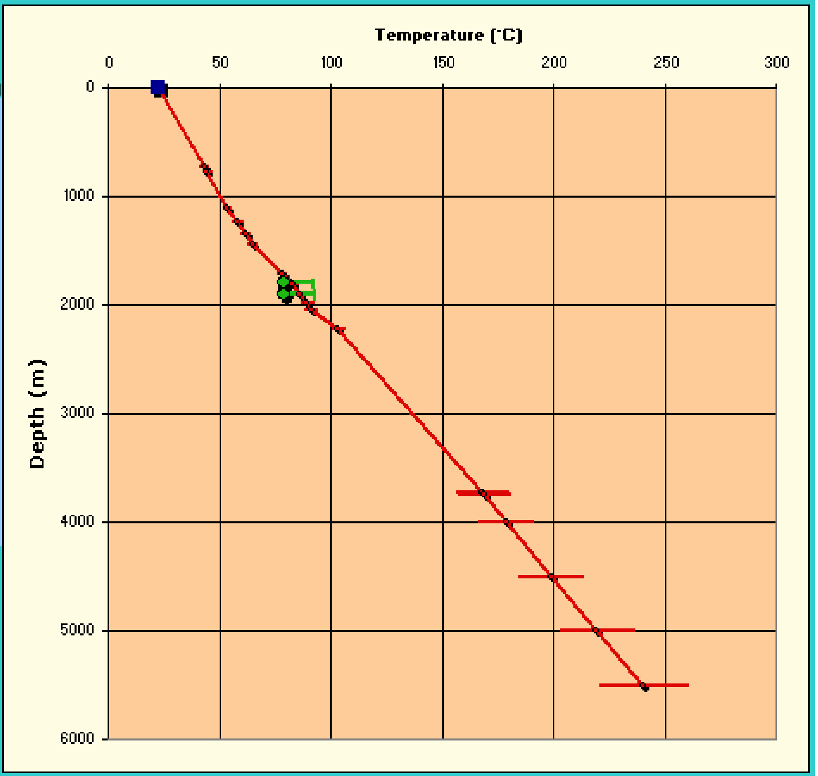


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1577.34	65.55	0	11.041	BHT, ΔT not recorded
2161.03	82.22	0	15.127	BHT, ΔT not recorded

Number of layers	20	Up to 50	Heat flow:	97 ± 5.5 mW/m2
"Depth" to ground level	0	"KB height"		
Total Depth (m)	5500	From drilling datum		
Surface temp. (°C)	22.5	Dongara-08		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	coastal limestones	0	1.42 ± 0.14
2	Yarragadee Formation	5	3.54 ± 0.30
3	Cadda Formation	731	4.14 ± 0.52
4	Cattamarra Coal Measure	785	3.73 ± 0.20
5	Eneabba Formation	1116	2.62 ± 0.44
6	Lesueur Sandstone	1234	3.56 ± 0.23
7	Woodada Formation	1356	2.79 ± 0.12
8	Kockatea Shale	1445	2.09 ± 0.06
9	Dongara Sandstone	1709	2.92 ± 0.56
10	Carynginia Formation	1747	1.77 ± 0.36
11	Irwin River Coal Measures	1807	3.02 ± 0.50
12	Irwin River Coal Measures	1899	3.02 ± 0.50
13	High Cliff Sandstone	1980	4.40 ± 0.20
14	Holmwood Shale	2050	1.45 ± 0.15
15	Nangetty Formation	2225	2.75 ± 0.48
16	Wicherina Beds	3735	2.75 ± 0.48
17	Basement	3750	3.20 ± 0.40
18	Basement	4000	3.20 ± 0.40
19	Basement	4500	3.20 ± 0.40
20	Basement	5000	3.20 ± 0.40

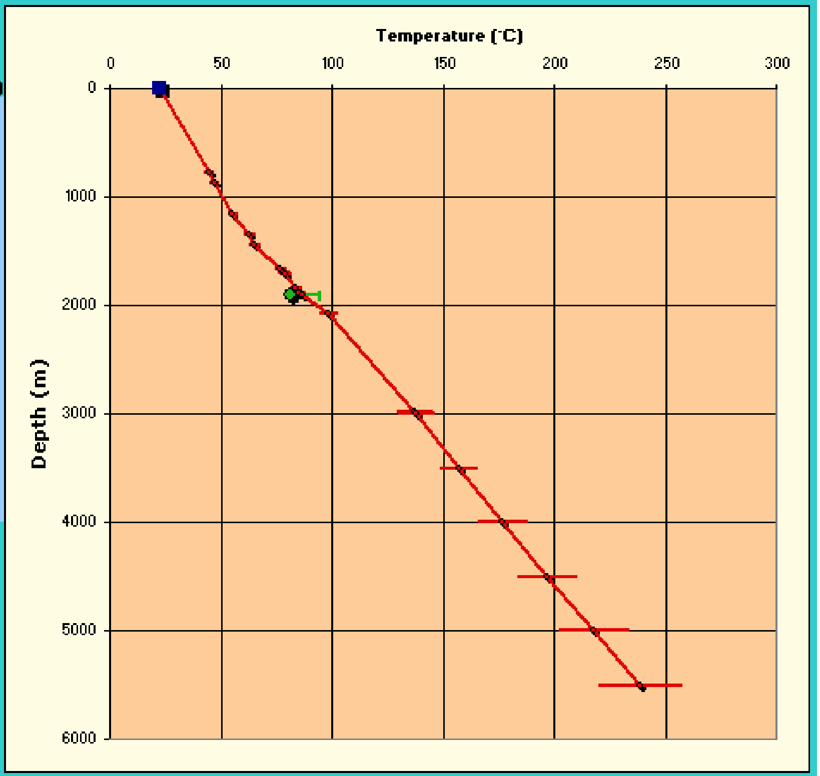


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1895.86	79.44	0	13.271	BHT, ΔT not recorded
1793.14	79.44	0	12.552	BHT, ΔT not recorded
1899.21	79.44	0	13.294	BHT, ΔT not recorded
1899.51	79.44	0	13.297	BHT, ΔT not recorded

Number of layers	19	Up to 50	**Heat flow:** 99 ± 4.2 mW/m2
"Depth" to ground level	0	"KB height"	
Total Depth (m)	5500	From drilling datum	
Surface temp. (°C)	22.5	Dongara-09	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	Yarragadee Formation	0	3.54 ± 0.30
2	Cadda Formation	775	4.14 ± 0.52
3	Cattamarra Coal Measure	875	3.73 ± 0.20
4	Eneabba Formation	1165	2.62 ± 0.44
5	Lesueur Sandstone	1351	3.56 ± 0.23
6	Kockatea Shale	1437	2.09 ± 0.06
7	Dongara Sandstone	1666	2.92 ± 0.56
8	Carynginia Formation	1693	1.77 ± 0.36
9	Irwin River Coal Measures	1708	3.02 ± 0.50
10	High Cliff Sandstone	1840	4.40 ± 0.20
11	Holmwood Shale	1888	1.45 ± 0.15
12	Holmwood Shale	1910	1.45 ± 0.15
13	Nangetty Formation	2075	2.75 ± 0.48
14	Wicherina Beds	2991	2.75 ± 0.48
15	Basement	3000	3.20 ± 0.40
16	Basement	3500	3.20 ± 0.40
17	Basement	4000	3.20 ± 0.40
18	Basement	4500	3.20 ± 0.40
19	Basement	5000	3.20 ± 0.40

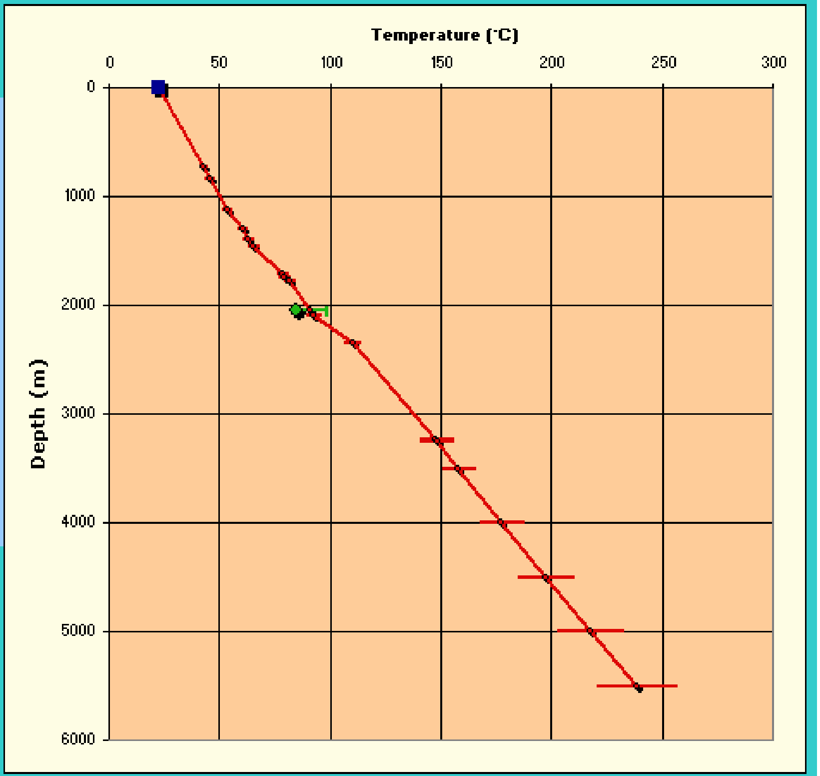


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1906.22	81.11	0	13.344	BHT, ΔT not recorded

Number of layers	20	Up to 50	Heat flow:	97 ± 4.0 mW/m2
"Depth" to ground level	0	"KB height"		
Total Depth (m)	5500	From drilling datum		
Surface temp. (°C)	22.5	Dongara-10		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	Yarragadee Formation	0	3.54 ± 0.30
2	Cadda Formation	725	4.14 ± 0.52
3	Cattamarra Coal Measure	841	3.73 ± 0.20
4	Eneabba Formation	1126	2.62 ± 0.44
5	Lesueur Sandstone	1302	3.56 ± 0.23
6	Woodada Formation	1396	2.79 ± 0.12
7	Kockatea Shale	1455	2.09 ± 0.06
8	Dongara Sandstone	1721	2.92 ± 0.56
9	Carynginia Formation	1747	1.77 ± 0.36
10	Irwin River Coal Measures	1783	3.02 ± 0.50
11	Irwin River Coal Measures	2042	3.02 ± 0.50
12	High Cliff Sandstone	2050	4.40 ± 0.20
13	Holmwood Shale	2100	1.45 ± 0.15
14	Nangetty Formation	2350	2.75 ± 0.48
15	Wicherina Beds	3240	2.75 ± 0.48
16	Basement	3250	3.20 ± 0.40
17	Basement	3500	3.20 ± 0.40
18	Basement	4000	3.20 ± 0.40
19	Basement	4500	3.20 ± 0.40
20	Basement	5000	3.20 ± 0.40

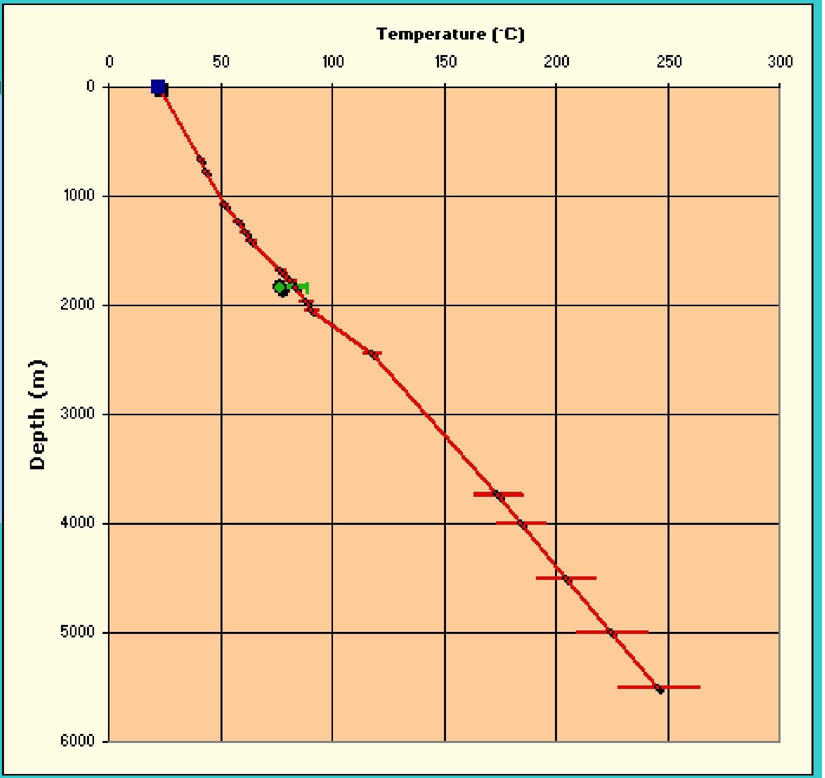


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
2043.2	84.44	0	14.302	BHT, ΔT not recorded
2046.55	84.44	0	14.326	BHT, ΔT not recorded

Number of layers	19	Up to 50	**Heat flow:** 96 ± 4.9 mW/m2
"Depth" to ground level	0	"KB height"	
Total Depth (m)	5500	From drilling datum	
Surface temp. (°C)	22.5	Dongara-11	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	Yarragadee Formation	0	3.54 ± 0.30
2	Cadda Formation	674	4.14 ± 0.52
3	Cattamarra Coal Measure	777	3.73 ± 0.20
4	Eneabba Formation	1073	2.62 ± 0.44
5	Lesueur Sandstone	1238	3.56 ± 0.23
6	Woodada Formation	1339	2.79 ± 0.12
7	Kockatea Shale	1412	2.09 ± 0.06
8	Dongara Sandstone	1682	2.92 ± 0.56
9	Carynginia Formation	1713	1.77 ± 0.36
10	Irwin River Coal Measures	1773	3.02 ± 0.50
11	Irwin River Coal Measures	1835	3.02 ± 0.50
12	High Cliff Sandstone	1975	4.40 ± 0.20
13	Holmwood Shale	2048	1.45 ± 0.15
14	Nangetty Formation	2439	2.75 ± 0.48
15	Wicherina Beds	3737	2.75 ± 0.48
16	Basement	3750	3.20 ± 0.40
17	Basement	4000	3.20 ± 0.40
18	Basement	4500	3.20 ± 0.40
19	Basement	5000	3.20 ± 0.40

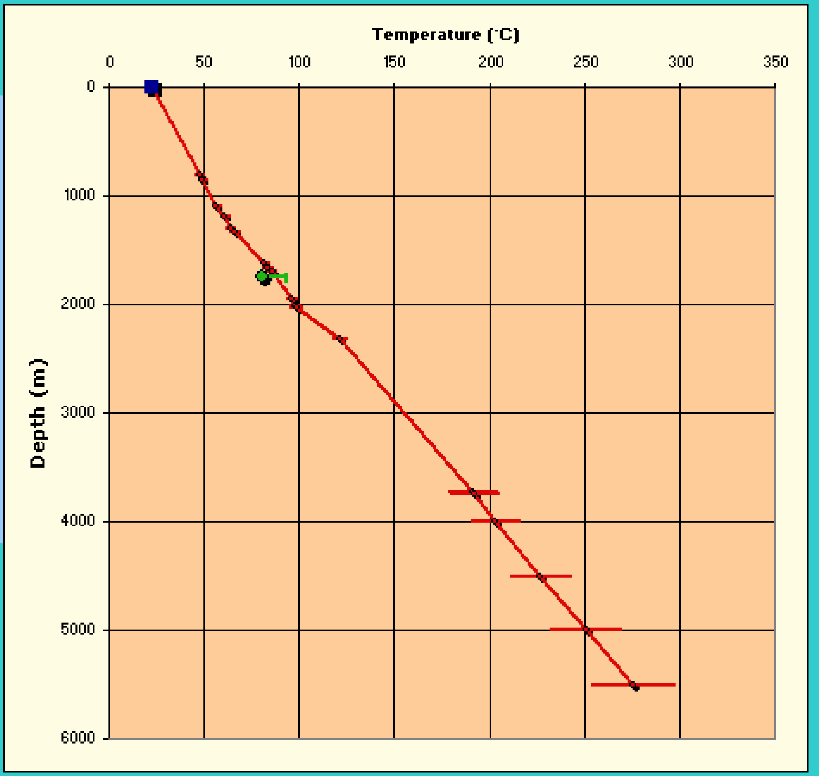


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1831.54	76.66	0	12.821	BHT, ΔT not recorded
1834.29	76.66	0	12.84	BHT, ΔT not recorded
1834.3	76.66	0	12.84	BHT, ΔT not recorded

Number of layers	20	Up to 50	Heat flow:	108 ± 5.9 mW/m2
"Depth" to ground level	0	"KB height"		
Total Depth (m)	5500	From drilling datum		
Surface temp. (°C)	22.5	Dongara-12		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	coastal limestone	0	1.42 ± 0.14
2	Yarragadee Formation	3	3.54 ± 0.30
3	Cadda Formation	803	4.14 ± 0.52
4	Cattamarra Coal Measure	853	3.73 ± 0.20
5	Eneabba Formation	1094	2.62 ± 0.44
6	Lesueur Sandstone	1197	3.56 ± 0.23
7	Woodada Formation	1297	2.79 ± 0.12
8	Kockatea Shale	1341	2.09 ± 0.06
9	Wagina Sandstone	1625	2.92 ± 0.56
10	Carynginia Formation	1663	1.77 ± 0.36
11	Irwin River Coal Measures	1701	3.02 ± 0.50
12	High Cliff Sandstone	1954	4.40 ± 0.20
13	High Cliff Sandstone	2013	4.40 ± 0.20
14	Holmwood Shale	2030	1.45 ± 0.15
15	Nangetty Formation	2320	2.75 ± 0.48
16	Wicherina Beds	3736	2.75 ± 0.48
17	Basement	3750	3.20 ± 0.40
18	Basement	4000	3.20 ± 0.40
19	Basement	4500	3.20 ± 0.40
20	Basement	5000	3.20 ± 0.40

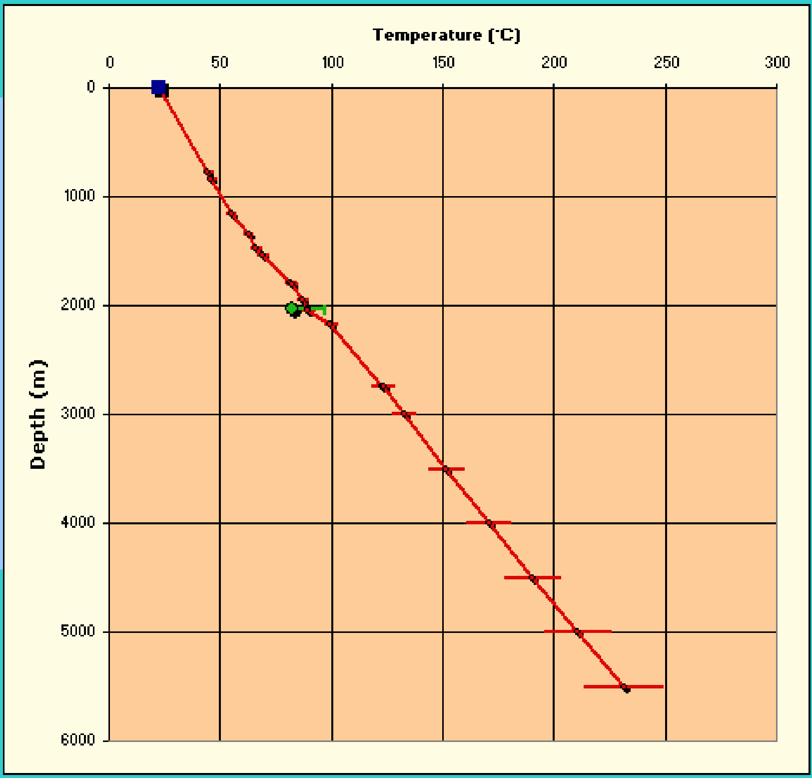


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1743.76	81.11	0	12.206	BHT, ΔT not recorded

Number of layers	21	Up to 50	Heat flow: 98 ± 3.5 mW/m2
"Depth" to ground level	0	"KB height"	
Total Depth (m)	5500	From drilling datum	
Surface temp. (°C)	22.5	Dongara-13	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	coastal limestones	0	1.42 ± 0.14
2	Yarragadee Formation	4	3.54 ± 0.30
3	Cadda Formation	770	4.14 ± 0.52
4	Cattamarra Coal Measure	839	3.73 ± 0.20
5	Eneabba Formation	1161	2.62 ± 0.44
6	Lesueur Sandstone	1350	3.56 ± 0.23
7	Woodada Formation	1478	2.79 ± 0.12
8	Kockatea Shale	1541	2.09 ± 0.06
9	Dongara Sandstone	1796	2.92 ± 0.56
10	Irwin River Coal Measure:	1808	3.02 ± 0.50
11	High Cliff Sandstone	1949	4.40 ± 0.20
12	High Cliff Sandstone	2033	4.40 ± 0.20
13	Holmwood Shale	2040	1.45 ± 0.15
14	Nangetty Formation	2180	2.75 ± 0.48
15	Wicherina Beds	2745	2.75 ± 0.48
16	Basement	2750	3.20 ± 0.40
17	Basement	3000	3.20 ± 0.40
18	Basement	3500	3.20 ± 0.40
19	Basement	4000	3.20 ± 0.40
20	Basement	4500	3.20 ± 0.40
21	Basement	5000	3.20 ± 0.40

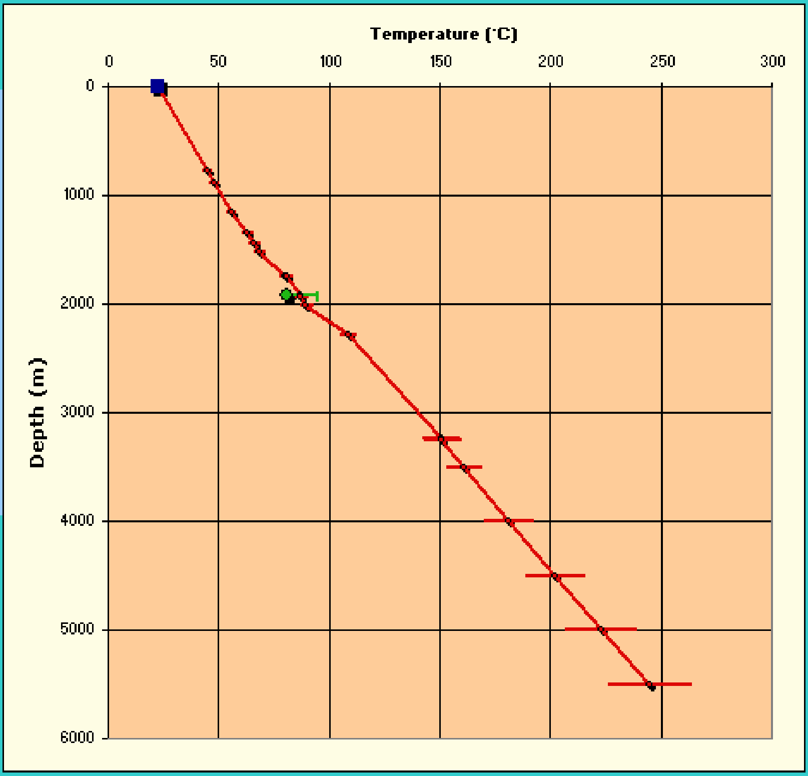


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
2029.97	82.77	0	14.21	BHT, ΔT not recorded

Number of layers	19	Up to 50	Heat flow:	100	± 4.3 mW/m2
"Depth" to ground level	0	"KB height"			
Total Depth (m)	5500	From drilling datum			
Surface temp. (°C)	22.5	Dongara-14			

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	Yarragadee Formation	0	3.54 ± 0.30
2	Cadda Formation	774	4.14 ± 0.52
3	Cattamarra Coal Measure	892	3.73 ± 0.20
4	Eneabba Formation	1166	2.62 ± 0.44
5	Lesueur Sandstone	1344	3.56 ± 0.23
6	Woodada Formation	1452	2.79 ± 0.12
7	Kockatea Shale	1516	2.09 ± 0.06
8	Dongara Sandstone	1740	2.92 ± 0.56
9	Irwin River Coal Measures	1751	3.02 ± 0.50
10	Irwin River Coal Measures	1918	3.02 ± 0.50
11	High Cliff Sandstone	1930	4.40 ± 0.20
12	Holmwood Shale	2020	1.45 ± 0.15
13	Nangetty Formation	2280	2.75 ± 0.48
14	Wicherina Beds	3240	2.75 ± 0.48
15	Basement	3250	3.20 ± 0.40
16	Basement	3500	3.20 ± 0.40
17	Basement	4000	3.20 ± 0.40
18	Basement	4500	3.20 ± 0.40
19	Basement	5000	3.20 ± 0.40

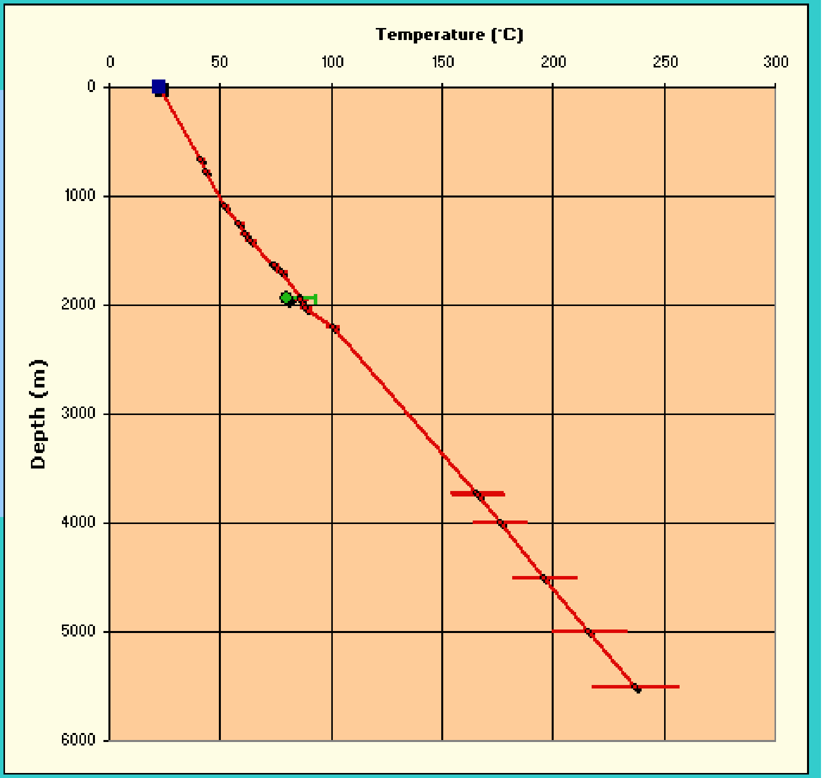


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1915.97	81.11	0	13.412	BHT, ΔT not recorded

Number of layers	19	Up to 50	**Heat flow:**	96 ± 5.6 mW/m2
"Depth" to ground level	0	"KB height"		
Total Depth (m)	5500	From drilling datum		
Surface temp. (°C)	22.5	Dongara-15		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)	
1	Yarragadee Formation	0	3.54	± 0.30
2	Cadda Formation	668	4.14	± 0.52
3	Cattamarra Coal Measure	777	3.73	± 0.20
4	Eneabba Formation	1088	2.62	± 0.44
5	Lesueur Sandstone	1253	3.56	± 0.23
6	Woodada Formation	1353	2.79	± 0.12
7	Kockatea Shale	1420	2.09	± 0.06
8	Dongara Sandstone	1633	2.92	± 0.56
9	Carynginia Formation	1637	1.77	± 0.36
10	Irwin River Coal Measures	1700	3.02	± 0.50
11	Irwin River Coal Measures	1939	3.02	± 0.50
12	High Cliff Sandstone	1945	4.40	± 0.20
13	Holmwood Shale	2025	1.45	± 0.15
14	Nangetty Formation	2200	2.75	± 0.48
15	Vicherina Beds	3736	2.75	± 0.48
16	Basement	3750	3.20	± 0.40
17	Basement	4000	3.20	± 0.40
18	Basement	4500	3.20	± 0.40
19	Basement	5000	3.20	± 0.40

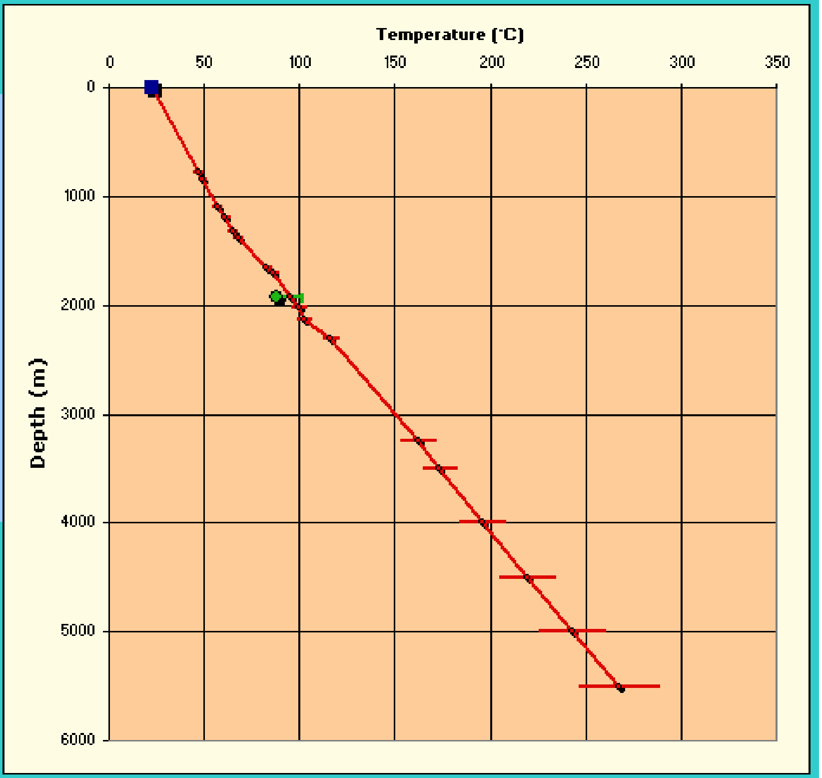


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1940.66	80	0	13.585	BHT, ΔT not recorded

Number of layers	19	Up to 50	Heat flow: 109 ± 4.7 mW/m2
"Depth" to ground level	0	"KB height"	
Total Depth (m)	5500	From drilling datum	
Surface temp. (°C)	22.5	Dongara-16	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	Yarragadee Formation	0	3.54 ± 0.30
2	Cadda Formation	775	4.14 ± 0.52
3	Cattamarra Coal Measure	844	3.73 ± 0.20
4	Eneabba Formation	1100	2.62 ± 0.44
5	Lesueur Sandstone	1195	3.56 ± 0.23
6	Woodada Formation	1318	2.79 ± 0.12
7	Kockatea Shale	1384	2.09 ± 0.06
8	Carynginia Formation	1652	1.77 ± 0.36
9	Irwin River Coal Measures	1704	3.02 ± 0.50
10	Irwin River Coal Measures	1924	3.02 ± 0.50
11	High Cliff Sandstone	2025	4.40 ± 0.20
12	Holmwood Shale	2125	1.45 ± 0.15
13	Nangetty Formation	2300	2.75 ± 0.48
14	Wicherina Beds	3240	2.75 ± 0.48
15	Basement	3250	3.20 ± 0.40
16	Basement	3500	3.20 ± 0.40
17	Basement	4000	3.20 ± 0.40
18	Basement	4500	3.20 ± 0.40
19	Basement	5000	3.20 ± 0.40

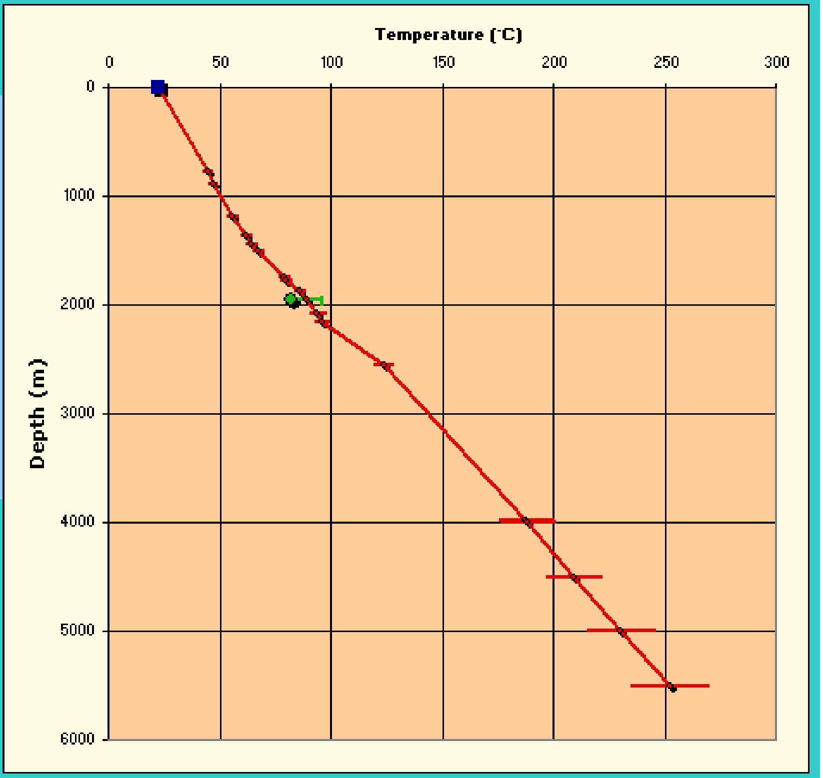


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1922.07	87.78	0	13.454	BHT, ΔT not recorded

Number of layers	18	Up to 50	Heat flow:	98 ± 5.4 mW/m2
"Depth" to ground level	0	"KB height"		
Total Depth (m)	5500	From drilling datum		
Surface temp. (°C)	22.5	Dongara-17		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	Yarragadee Formation	0	3.54 ± 0.30
2	Cadda Formation	782	4.14 ± 0.52
3	Cattamarra Coal Measure	884	3.73 ± 0.20
4	Eneabba Formation	1196	2.62 ± 0.44
5	Lesueur Sandstone	1359	3.56 ± 0.23
6	Woodada Formation	1437	2.79 ± 0.12
7	Kockatea Shale	1509	2.09 ± 0.06
8	Dongara Sandstone	1745	2.92 ± 0.56
9	Carynginia Formation	1771	1.77 ± 0.36
10	Irwin River Coal Measures	1870	3.02 ± 0.50
11	Irwin River Coal Measures	1949	3.02 ± 0.50
12	High Cliff Sandstone	2087	4.40 ± 0.20
13	Holmwood Shale	2166	1.45 ± 0.15
14	Nangetty Formation	2550	2.75 ± 0.48
15	Wicherina Beds	3986	2.75 ± 0.48
16	Basement	4000	3.20 ± 0.40
17	Basement	4500	3.20 ± 0.40
18	Basement	5000	3.20 ± 0.40

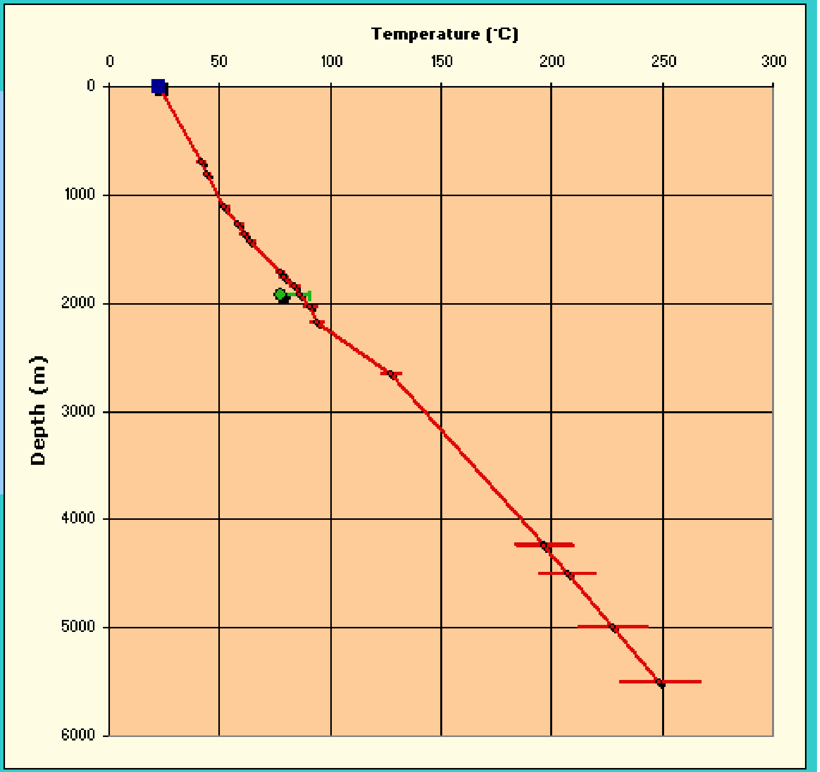


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1948.59	82.22	0	13.64	BHT, ΔT not recorded

Number of layers	18	Up to 50	Heat flow:	95 ± 5.6 mW/m2
"Depth" to ground level	0	"KB height"		
Total Depth (m)	5500	From drilling datum		
Surface temp. (°C)	22.5	Dongara-18		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	Yarragadee Formation	0	3.54 ± 0.30
2	Cadda Formation	700	4.14 ± 0.52
3	Cattamarra Coal Measure	806	3.73 ± 0.20
4	Eneabba Formation	1113	2.62 ± 0.44
5	Lesueur Sandstone	1271	3.56 ± 0.23
6	Woodada Formation	1362	2.79 ± 0.12
7	Kockatea Shale	1440	2.09 ± 0.06
8	Dongara Sandstone	1717	2.92 ± 0.56
9	Carynginia Formation	1765	1.77 ± 0.36
10	Irwin River Coal Measures	1847	3.02 ± 0.50
11	Irwin River Coal Measures	1920	3.02 ± 0.50
12	High Cliff Sandstone	2042	4.40 ± 0.20
13	Holmwood Shale	2181	1.45 ± 0.15
14	Nangetty Formation	2657	2.75 ± 0.48
15	Wicherina Beds	4234	2.75 ± 0.48
16	Basement	4250	3.20 ± 0.40
17	Basement	4500	3.20 ± 0.40
18	Basement	5000	3.20 ± 0.40

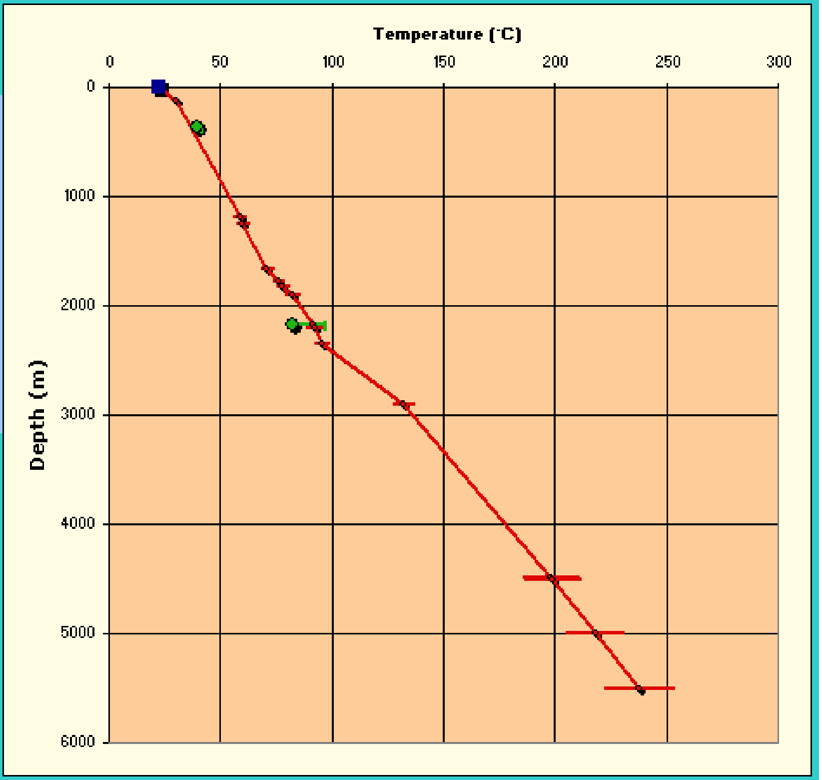


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1922.07	77.78	0	13.454	BHT, ΔT not recorded

Number of layers	15	Up to 50	Heat flow: 90 ± 5.4 mW/m2
"Depth" to ground level	0	"KB height"	
Total Depth (m)	5500	From drilling datum	
Surface temp. (°C)	22.5	Dongara-19	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		0	1.42 ± 0.14
2	Yarragadee Formation	123	3.54 ± 0.30
3	Cadda Formation	1195	4.14 ± 0.52
4	Cattamarra Coal Measure	1250	3.73 ± 0.20
5	Kockatea Shale	1661	2.09 ± 0.06
6	Wagina Sandstone	1773	2.92 ± 0.56
7	Carynginia Formation	1829	1.77 ± 0.36
8	Irwin River Coal Measures	1911	3.02 ± 0.50
9	Irwin River Coal Measures	2179	3.02 ± 0.50
10	High Cliff Sandstone	2200	4.40 ± 0.20
11	Holmwood Shale	2350	1.45 ± 0.15
12	Nangetty Formation	2900	2.75 ± 0.48
13	Wicherina Beds	4485	2.75 ± 0.48
14	Basement	4500	3.20 ± 0.40
15	Basement	5000	3.20 ± 0.40

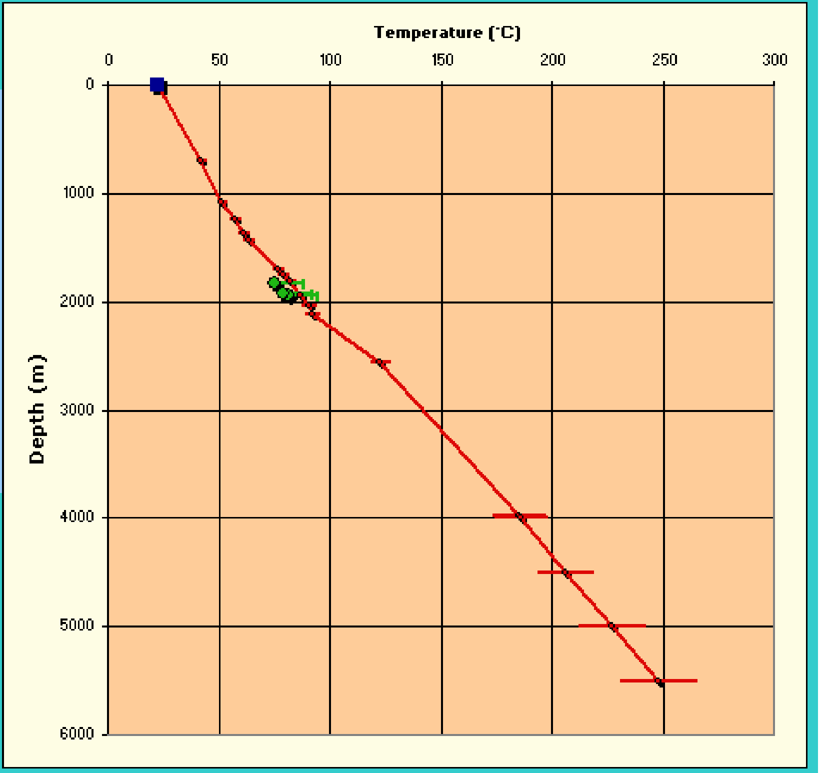


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
365.76	39.44	0	2.5603	BHT, ΔT not recorded
2176.58	82.22	0	15.236	BHT, ΔT not recorded

Number of layers	18	Up to 50	**Heat flow:** 96 ± 5.3 mW/m2
"Depth" to ground level	0	"KB height"	
Total Depth (m)	5500	From drilling datum	
Surface temp. (°C)	22.5	Dongara-20	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		0	1.42 ± 0.14
2	Yarragadee Formation	5	3.54 ± 0.30
3	Cadda Formation	707	4.14 ± 0.52
4	Eneabba Formation	1089	2.62 ± 0.44
5	Lesueur Sandstone	1243	3.56 ± 0.23
6	Woodada Formation	1370	2.79 ± 0.12
7	Kockatea Shale	1436	2.09 ± 0.06
8	Dongara Sandstone	1709	2.92 ± 0.56
9	Carynginia Formation	1756	1.77 ± 0.36
10	Irwin River Coal Measure:	1820	3.02 ± 0.50
11	Irwin River Coal Measure:	1939	3.02 ± 0.50
12	High Cliff Sandstone	2043	4.40 ± 0.20
13	Holmwood Shale	2124	1.45 ± 0.15
14	Nangetty Formation	2556	2.75 ± 0.48
15	Wicherina Beds	3986	2.75 ± 0.48
16	Basement	4000	3.20 ± 0.40
17	Basement	4500	3.20 ± 0.40
18	Basement	5000	3.20 ± 0.40

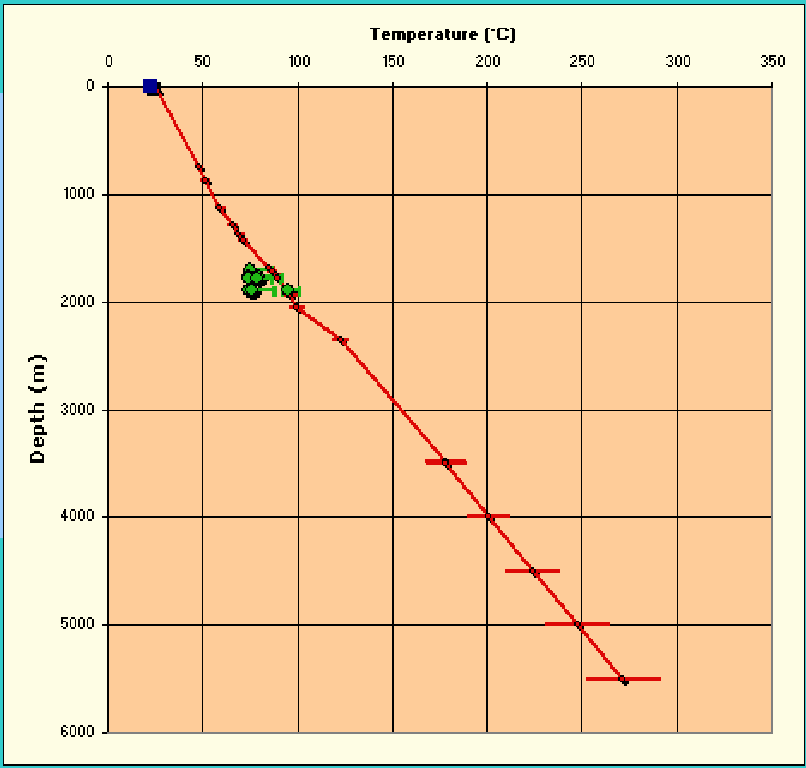


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1833.8	75.56	0	12.837	BHT, ΔT not recorded
1934	81.11	0	13.538	BHT, ΔT not recorded
1932.5	78.89	0	13.528	BHT, ΔT not recorded

Number of layers	20	Up to 50	Heat flow:	107 ± 5.1 mW/m2
"Depth" to ground level	0	"KB height"		
Total Depth (m)	5500	From drilling datum		
Surface temp. (°C)	22.5	Dongara-21		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		0	1.42 ± 0.14
2	Yarragadee Formation	47	3.54 ± 0.30
3	Cadda Formation	745	4.14 ± 0.52
4	Cattamarra Coal Measure	869	3.73 ± 0.20
5	Eaneabba Formation	1133	2.62 ± 0.44
6	Lesueur Sandstone	1284	3.56 ± 0.23
7	Woodada Formation	1376	2.79 ± 0.12
8	Kockatea Shale	1431	2.09 ± 0.06
9	Dongara Sandstone	1688	2.92 ± 0.56
10	Carynginia Formation	1718	1.77 ± 0.36
11	Irwin River Coal Measures	1744	3.02 ± 0.50
12	Irwin River Coal Measures	1779	3.02 ± 0.50
13	High Cliff Sandstone	1940	4.40 ± 0.20
14	Holmwood Shale	2050	1.45 ± 0.15
15	Nangetty Formation	2350	2.75 ± 0.48
16	Wicherina Beds	3490	2.75 ± 0.48
17	Basement	3500	3.20 ± 0.40
18	Basement	4000	3.20 ± 0.40
19	Basement	4500	3.20 ± 0.40
20	Basement	5000	3.20 ± 0.40

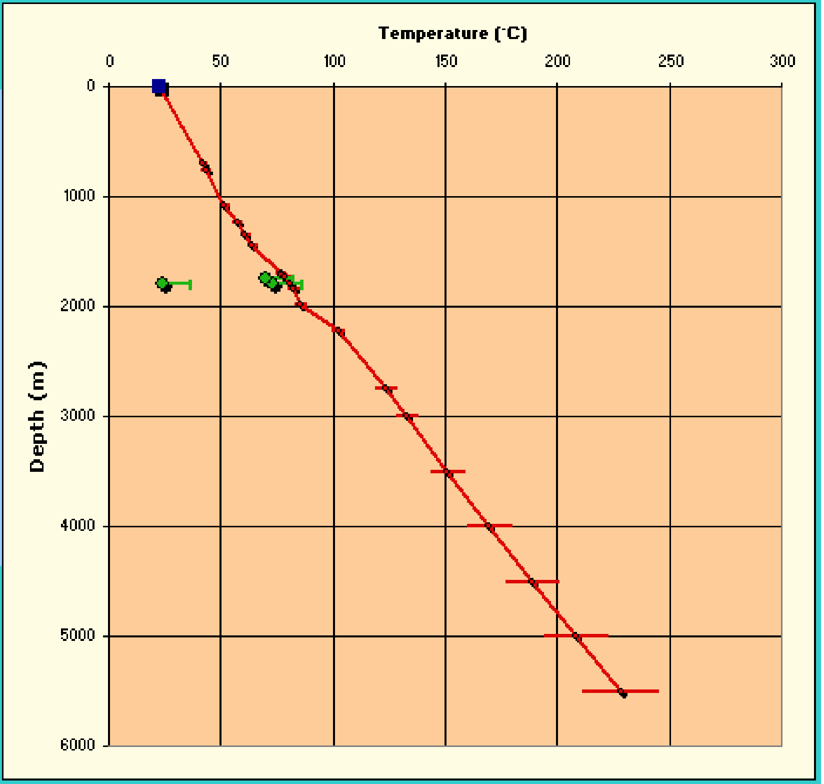


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1887	95.29	3	6	horner corrected, depths averaged, erronius date data corrected
1695	75	0	11.865	BHT, ΔT not recorded
1770	80	0	12.39	BHT, ΔT is 15.83 hours
1774	74.44	0	12.418	BHT, ΔT not recorded
1779	74.44	0	12.453	BHT, ΔT is 6.25 hours
1779	78.89	0	12.453	BHT, ΔT is 13.8 hours
1887	74.44	0	13.209	BHT, ΔT not recorded
1887	75.56	0	13.209	BHT, ΔT not recorded

Number of layers	21	Up to 50	**Heat flow:**	**95 ± 3.3 mW/m2**
"Depth" to ground level	0	"KB height"		
Total Depth (m)	5500	From driling datum		
Surface temp. (°C)	22.5	**Dongara-22**		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	Yarragadee Formation	0	3.54 ± 0.30
2	Cadda Formation	702	4.14 ± 0.52
3	Cattamarra Coal measure	764	3.73 ± 0.20
4	Enabba Formation	1078	2.62 ± 0.44
5	Lesueur Sandstone	1231	3.56 ± 0.23
6	Woodada Formation	1348	2.79 ± 0.12
7	Kockatea Shale	1439	2.09 ± 0.06
8	Dongara Sandstone	1701	2.92 ± 0.56
9	Carynginia Formation	1710	1.77 ± 0.36
10	Irwin River Coal Measures	1738	3.02 ± 0.50
11	Irwin River Coal Measures	1800	3.02 ± 0.50
12	High Cliff Sandstone	1841	4.40 ± 0.20
13	Holmwood Shale	1980	1.45 ± 0.15
14	Nangetty Formation	2220	2.75 ± 0.48
15	Wicherina Beds	2743	2.75 ± 0.48
16	Basement	2750	3.20 ± 0.40
17	Basement	3000	3.20 ± 0.40
18	Basement	3500	3.20 ± 0.40
19	Basement	4000	3.20 ± 0.40
20	Basement	4500	3.20 ± 0.40
21	Basement	5000	3.20 ± 0.40

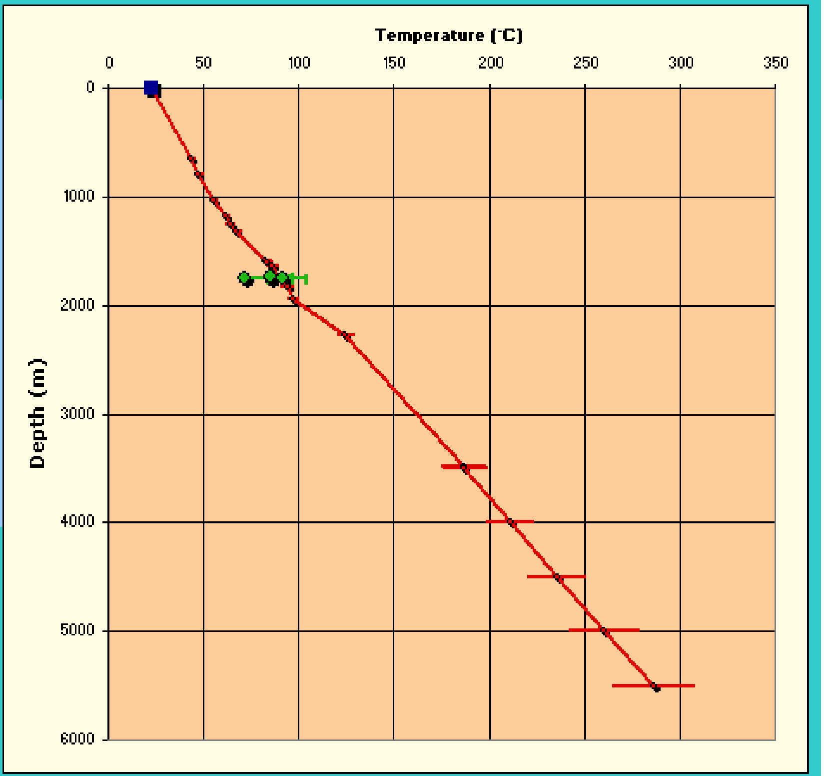


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1740	70	0	12.18	BHT, ΔT not recorded
1798	24.22	0	12.586	BHT, ΔT not recorded
1794	73.33	0	12.558	BHT, ΔT not recorded
1750	70	0	12.25	BHT, ΔT not recorded

Number of layers	19	Up to 50	**Heat flow:** 112 ± 5.5 mW/m2
"Depth" to ground level	0	"KB height"	
Total Depth (m)	5500	From drilling datum	
Surface temp. (°C)	22.5	Dongara-23	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	Yarragadee Formation	0	3.54 ± 0.30
2	Cadda Formation	660	4.14 ± 0.52
3	Cattamarra Coal Measure	793	3.73 ± 0.20
4	Eneabba Formation	1030	2.62 ± 0.44
5	Lesueur Sandstone	1175	3.56 ± 0.23
6	Woodada Formation	1251	2.79 ± 0.12
7	Kockatea Shale	1324	2.09 ± 0.06
8	Dongara Sandstone	1589	2.92 ± 0.56
9	Carynginia Formation	1610	1.77 ± 0.36
10	Irwin River Coal Measures	1647	3.02 ± 0.50
11	Irwin River Coal Measures	1765	3.02 ± 0.50
12	High Cliff Sandstone	1836	4.40 ± 0.20
13	Holmwood Shale	1940	1.45 ± 0.15
14	Nangetty Formation	2272	2.75 ± 0.48
15	Wicherina Beds	3488	2.75 ± 0.48
16	Basement	3500	3.20 ± 0.40
17	Basement	4000	3.20 ± 0.40
18	Basement	4500	3.20 ± 0.40
19	Basement	5000	3.20 ± 0.40

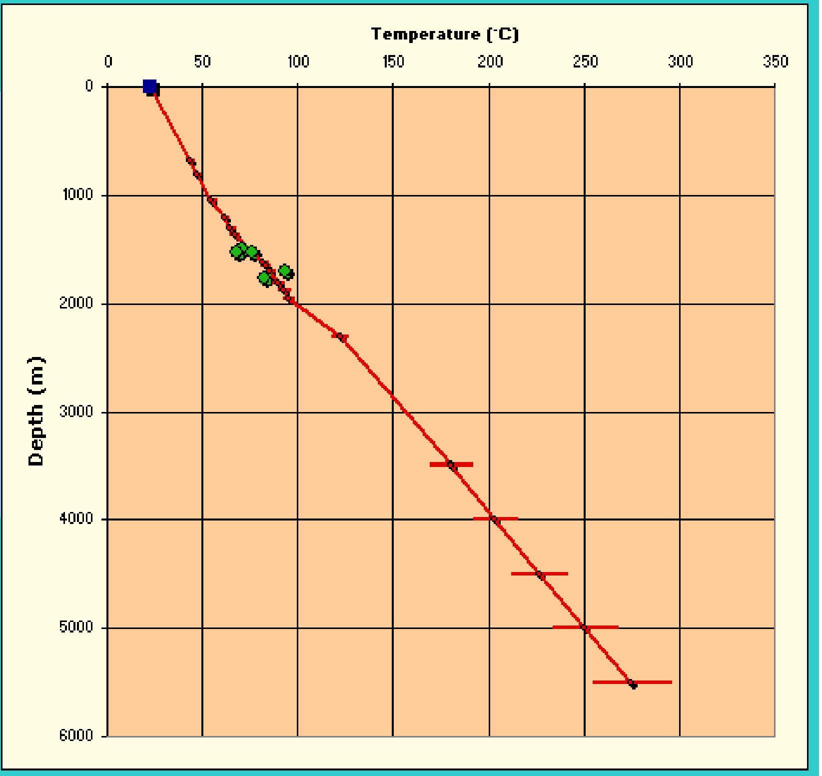


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1758	72	0	12.306	BHT, ΔT not recorded
1758	85	0	12.306	BHT, ΔT not recorded
1757.5	92	0	12.303	BHT, ΔT not recorded
1758	92	0	12.306	BHT, ΔT not recorded
1742.5	85	0	12.198	BHT, ΔT not recorded

Number of layers	19	Up to 50	Heat flow:	108	± 5.3 mW/m2
"Depth" to ground level	0	"KB height"			
Total Depth (m)	5500	From drilling datum			
Surface temp. (°C)	22.5	Dongara-24			

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	Yarragadee Formation	0	3.54 ± 0.30
2	Cadda Formation	687	4.14 ± 0.52
3	Cattamarra Coal Measure	811	3.73 ± 0.20
4	Eneabba Formation	1058	2.62 ± 0.44
5	Lesueur Sandstone	1213	3.56 ± 0.23
6	Woodada Formation	1309	2.79 ± 0.12
7	Kockatea Shale	1363	2.09 ± 0.06
8	Dongara Sandstone	1627	2.92 ± 0.56
9	Carynginia Formation	1660	1.77 ± 0.36
10	Irwin River Coal Measures	1696	3.02 ± 0.50
11	Irwin River Coal Measures	1808	3.02 ± 0.50
12	High Cliff Sandstone	1880	4.40 ± 0.20
13	Holmwood Shale	1960	1.45 ± 0.15
14	Nangetty Formation	2300	2.75 ± 0.48
15	Wicherina Beds	3488	2.75 ± 0.48
16	Basement	3500	3.20 ± 0.40
17	Basement	4000	3.20 ± 0.40
18	Basement	4500	3.20 ± 0.40
19	Basement	5000	3.20 ± 0.40

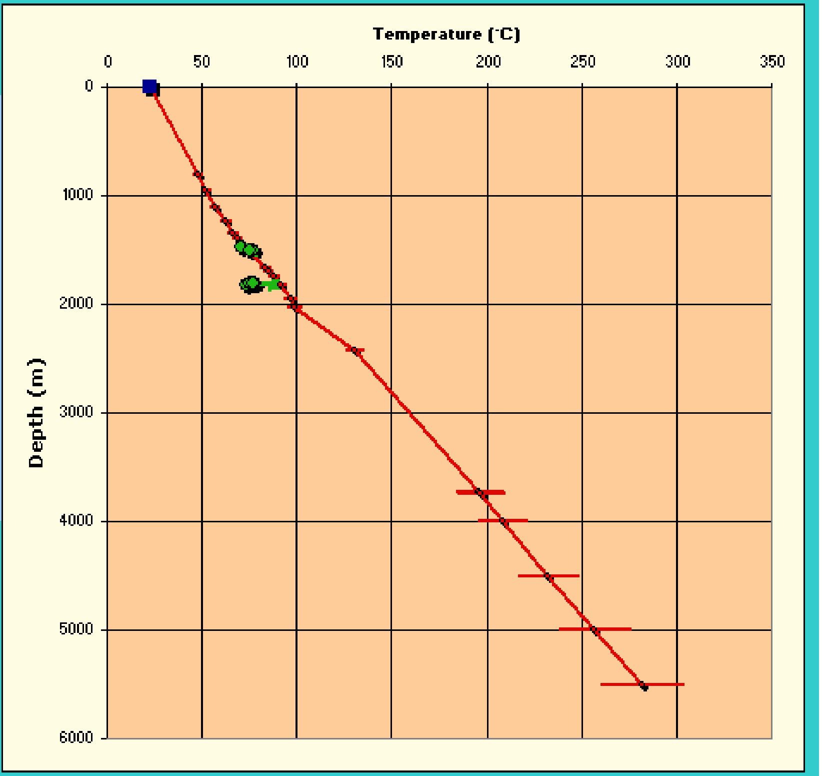


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1493	71.1	0	2	DST estimated; 'Open hole test.
1534.8	68.3	0	2	DST estimated; 'Open hole test.
1534.8	76.1	0	2	DST actual; 'Open hole test.
1700	93.3	0	2	DST Estimated; 'Cased hole test.
1767.7	82.68	1	3	horner corrected, depths averaged

Number of layers	19	Up to 50	Heat flow:	109 ± 5.6 mW/m2
"Depth" to ground level	0	"KB height"		
Total Depth (m)	5500	From drilling datum		
Surface temp. (°C)	22.5	Dongara-25		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	Yarragadee Formation	0	3.54 ± 0.30
2	Cadda Formation	806	4.14 ± 0.52
3	Cattamarra Coal Measure	952	3.73 ± 0.20
4	Eneabba Formation	1115	2.62 ± 0.44
5	Lesueur Sandstone	1242	3.56 ± 0.23
6	Woodada Formation	1347	2.79 ± 0.12
7	Kockatea Shale	1401	2.09 ± 0.06
8	Dongarra Sandstone	1666	2.92 ± 0.56
9	Carynginia Formation	1703	1.77 ± 0.36
10	Irwin River Coal Measure:	1753	3.02 ± 0.50
11	Irwin River Coal Measure:	1830	3.02 ± 0.50
12	High Cliff Sandstone	1957	4.40 ± 0.20
13	Holmwood Shale	2031	1.45 ± 0.15
14	Nangetty Formation	2426	2.75 ± 0.48
15	Wicherina Beds	3737	2.75 ± 0.48
16	Basement	3750	3.20 ± 0.40
17	Basement	4000	3.20 ± 0.40
18	Basement	4500	3.20 ± 0.40
19	Basement	5000	3.20 ± 0.40

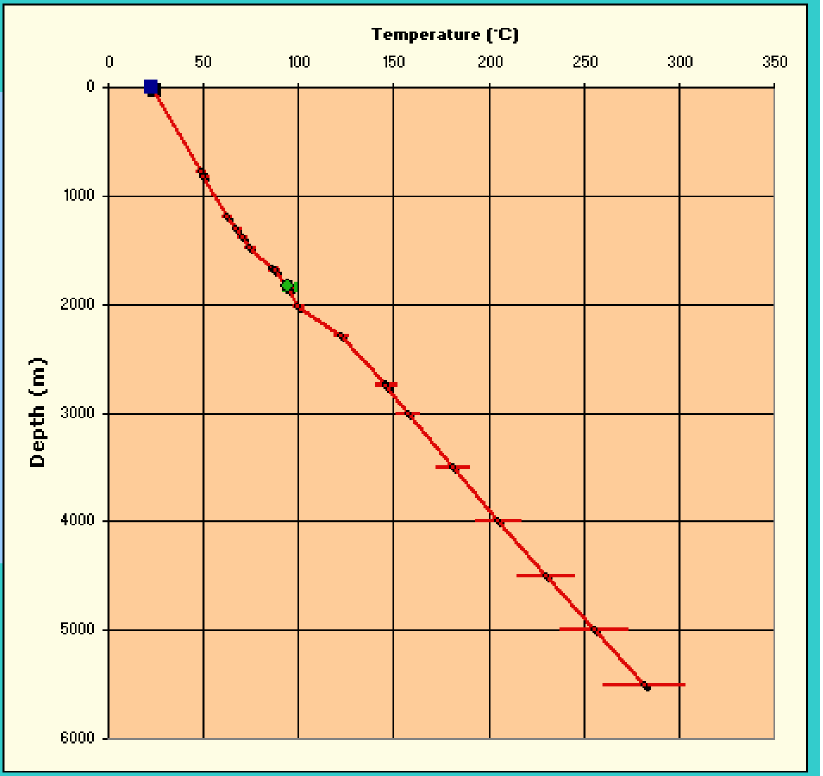


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1475	71.1	0	2	DST estimated; second test of bore giving same results was ommited, both had comment: 'Open hole test'.
1502	76.7	0	2	DST actual; 'Open hole test.
1502	75.6	0	2	DST actual; 'Open hole test.
1817.5	73	0	12.723	BHT, ΔT not recorded
1808.3	75	0	12.658	BHT, ΔT not recorded
1809	78	0	12.663	BHT, ΔT is 14 hours
1817.4	77	0	12.722	BHT, ΔT is 7.5 hours

Number of layers	21	Up to 50	Heat flow: 116 ± 4.0 mW/m2
"Depth" to ground level	0	"KB height"	
Total Depth (m)	5500	From drilling datum	
Surface temp. (°C)	22.5	Dongara-26	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	Yarragadee Formation	0	3.54 ± 0.30
2	Cadda Formation	777	4.14 ± 0.52
3	Cattamarra Coal Measure	825	3.73 ± 0.20
4	Eneabba Formation	1199	2.62 ± 0.44
5	Lesueur Sandstone	1304	3.56 ± 0.23
6	Woodada Formation	1388	2.79 ± 0.12
7	Kockatea Shale	1474	2.09 ± 0.06
8	Dongara Sandstone	1674	2.92 ± 0.56
9	Carynginia Formation	1686	1.77 ± 0.36
10	Irwin River Coal Measures	1694	3.02 ± 0.50
11	Irwin River Coal Measures	1830	3.02 ± 0.50
12	High Cliff Sandstone	1845	4.40 ± 0.20
13	Holmwood Shale	2020	1.45 ± 0.15
14	Nangetty Formation	2290	2.75 ± 0.48
15	Wicherina Beds	2745	2.75 ± 0.48
16	Basement	2750	3.20 ± 0.40
17	Basement	3000	3.20 ± 0.40
18	Basement	3500	3.20 ± 0.40
19	Basement	4000	3.20 ± 0.40
20	Basement	4500	3.20 ± 0.40
21	Basement	5000	3.20 ± 0.40

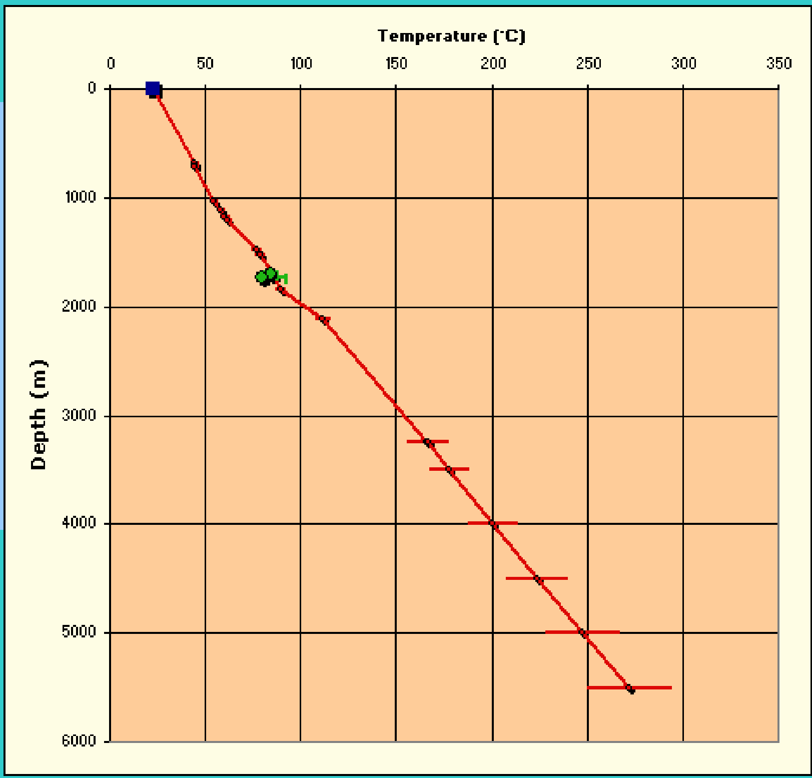


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1828.4	94.65	2	4	Horner corrected, average of depths

Number of layers	19	Up to 50	Heat flow: 109 ± 5.1 mW/m2
"Depth" to ground level	0	"KB height"	
Total Depth (m)	5500	From drilling datum	
Surface temp. (°C)	22.5	Dongara-27	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	Yarragadee Formation	0	3.54 ± 0.30
2	Cadda Formation	688	4.14 ± 0.52
3	Cattamarra Coal Measure	709	3.73 ± 0.20
4	Eneabba Formation	1032	2.62 ± 0.44
5	Lesueur Sandstone	1110	3.56 ± 0.23
6	Woodada Formation	1175	2.79 ± 0.12
7	Kockatea Shale	1215	2.09 ± 0.06
8	Dongara Sandstone	1482	2.92 ± 0.56
9	Irwin River Coal Measures	1525	3.02 ± 0.50
10	High Cliff Sandstone	1694	4.40 ± 0.20
11	High Cliff Sandstone	1730	4.40 ± 0.20
12	Holmwood Shale	1840	1.45 ± 0.15
13	Nangetty Formation	2120	2.75 ± 0.48
14	Wicherina Beds	3240	2.75 ± 0.48
15	Basement	3250	3.20 ± 0.40
16	Basement	3500	3.20 ± 0.40
17	Basement	4000	3.20 ± 0.40
18	Basement	4500	3.20 ± 0.40
19	Basement	5000	3.20 ± 0.40

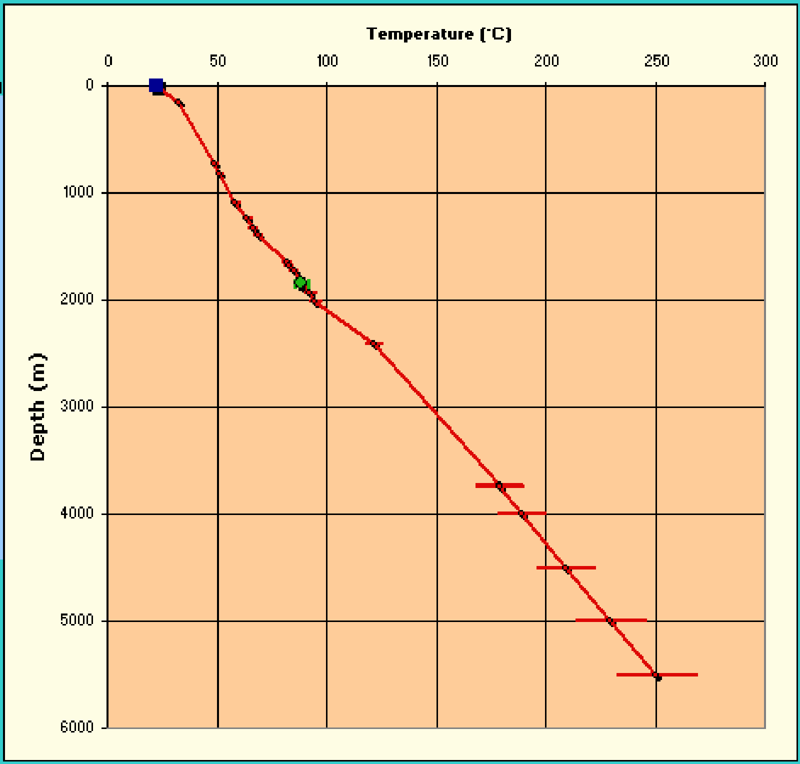


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1698.5	84.02	2	4	Horner corrected, depths averaged
1730.3	80	0	12.112	BHT, ΔT not recorded
1731.3	80	0	12.119	BHT, ΔT not recorded

Number of layers	21	Up to 50	**Heat flow:** 95 ± 4.8 mW/m2
"Depth" to ground level	0	"KB height"	
Total Depth (m)	5500	From drilling datum	
Surface temp. (°C)	22.5	Dongara-28	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		0	1.42 ± 0.14
2	Undifferentiated Quaternary	5	1.42 ± 0.14
3	Yarragaedee	151	3.54 ± 0.30
4	Cadda Formation	737	4.14 ± 0.52
5	Cattamarra Coal Measures	831	3.73 ± 0.20
6	Eneabba Formation	1096	2.62 ± 0.44
7	Lesueur Sandstone	1235	3.56 ± 0.23
8	Woodada Formation	1329	2.79 ± 0.12
9	Kockatea Shale	1393	2.09 ± 0.06
10	Dongara Sandstone	1657	2.92 ± 0.56
11	Carynginia Formation	1683	1.77 ± 0.36
12	Irwin River Coal Measures	1724	3.02 ± 0.50
13	Irwin River Coal Measures	1850	3.02 ± 0.50
14	High Cliff Sandstone	1931	4.40 ± 0.20
15	Holmwood Shale	2020	1.45 ± 0.15
16	Nangetty Formation	2407	2.75 ± 0.48
17	Wicherina Beds	3737	2.75 ± 0.48
18	Basement	3750	3.20 ± 0.40
19	Basement	4000	3.20 ± 0.40
20	Basement	4500	3.20 ± 0.40
21	Basement	5000	3.20 ± 0.40

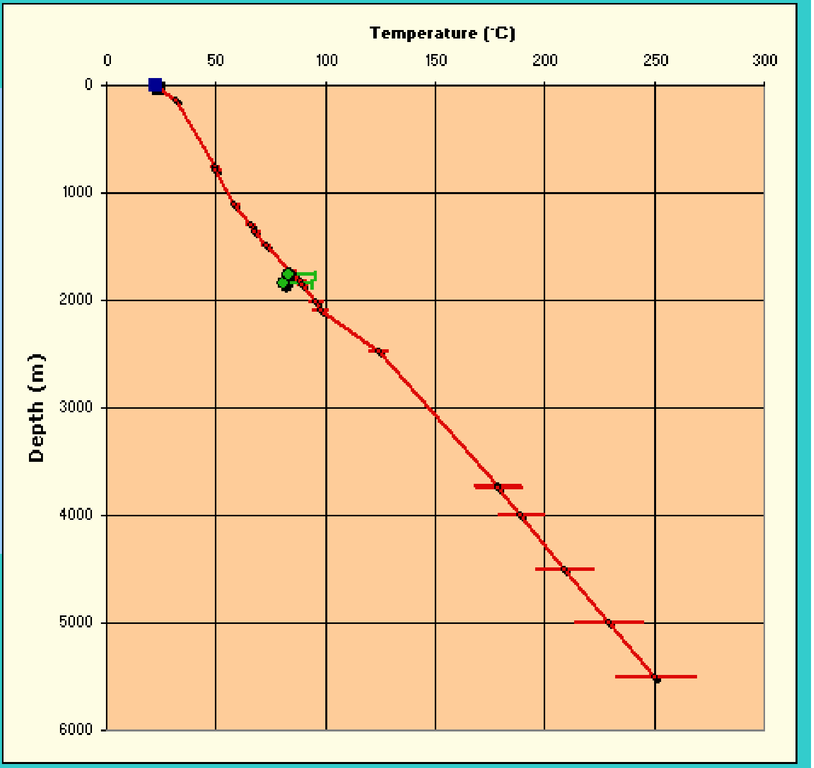


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1848.2	88.13	2	4	Horner corrected, depths averaged

Number of layers	21	Up to 50	**Heat flow:** 95 ± 4.7 mW/m2
"Depth" to ground level	0	"KB height"	
Total Depth (m)	5500	From drilling datum	
Surface temp. (°C)	22.5	Dongara-29	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		0	1.42 ± 0.14
2	Undifferentiated Quaternary	8	1.42 ± 0.14
3	Yarrageadee Formation	140	3.54 ± 0.30
4	Cadda Formation	769	4.14 ± 0.52
5	Cattamarra Coal Measures	796	3.73 ± 0.20
6	Eneabba Formation	1114	2.62 ± 0.44
7	Lesueur Sandstone	1299	3.56 ± 0.23
8	Woodada Sandstone	1371	2.79 ± 0.12
9	Kockatea Shale	1499	2.09 ± 0.06
10	Wagina Sandstone	1727	2.92 ± 0.56
11	Carynginia Formation	1762	1.77 ± 0.36
12	Irwin River Coal Measures	1823	3.02 ± 0.50
13	Irwin River Coal Measures	1850	3.02 ± 0.50
14	High Cliff Sandstone	2020	4.40 ± 0.20
15	Holmwood Shale	2092	1.45 ± 0.15
16	Nangetty Formation	2473	2.75 ± 0.48
17	Wicherina Beds	3737	2.75 ± 0.48
18	Basement	3750	3.20 ± 0.40
19	Basement	4000	3.20 ± 0.40
20	Basement	4500	3.20 ± 0.40
21	Basement	5000	3.20 ± 0.40

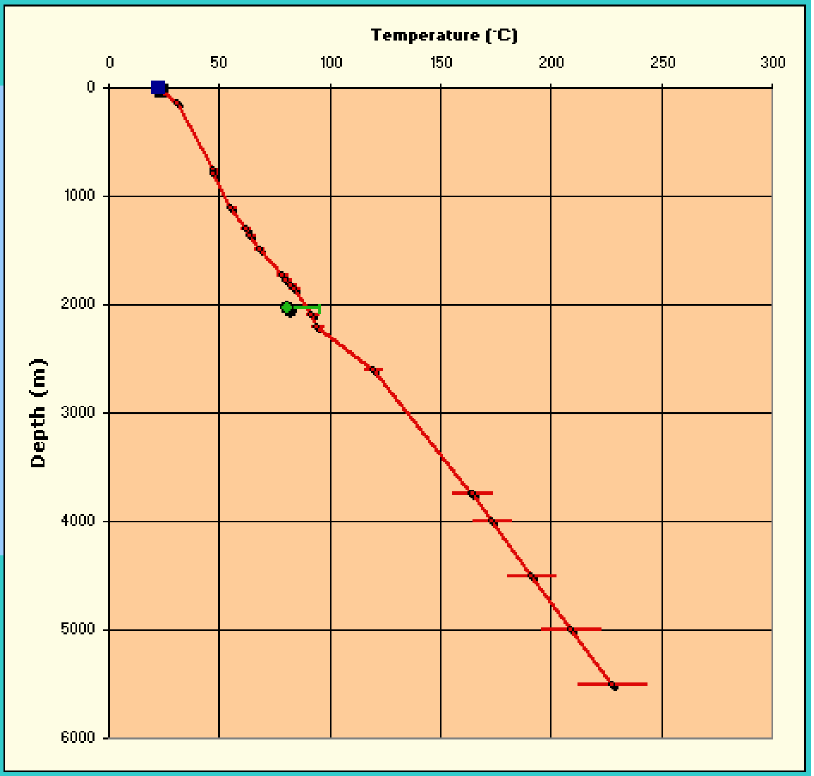


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1849	81	0	12.943	BHT, ΔT not recorded
1761	83	0	12.327	BHT, ΔT not recorded

Number of layers	21	Up to 50	**Heat flow:** 87 ± 4.0 mW/m2
"Depth" to ground level	0	"KB height"	
Total Depth (m)	5500	From drilling datum	
Surface temp. (°C)	22.5	Dongara-30	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		0	1.42 ± 0.14
2	Undifferentiated Quaternary	8	1.42 ± 0.14
3	Yarragadee Formation	140	3.54 ± 0.30
4	Cadda Formation	769	4.14 ± 0.52
5	Cattamarra Coal Measures	796	3.73 ± 0.20
6	Eneabba Formation	1116	2.62 ± 0.44
7	Lesueur Sandstone	1294	3.56 ± 0.23
8	Woodada Formation	1368	2.79 ± 0.12
9	Kockatea Shale	1498	2.09 ± 0.06
10	Dongara Sandstone	1729	2.92 ± 0.56
11	Carynginia Formation	1780	1.77 ± 0.36
12	Carynginia Formation	1827	1.77 ± 0.36
13	Irwin River Coal Measures	1850	3.02 ± 0.50
14	High Cliff Sandstone	2100	4.40 ± 0.20
15	Holmwood Shale	2200	1.45 ± 0.15
16	Nangetty Formation	2600	2.75 ± 0.48
17	Wicherina Beds	3739	2.75 ± 0.48
18	Basement	3750	3.20 ± 0.40
19	Basement	4000	3.20 ± 0.40
20	Basement	4500	3.20 ± 0.40
21	Basement	5000	3.20 ± 0.40

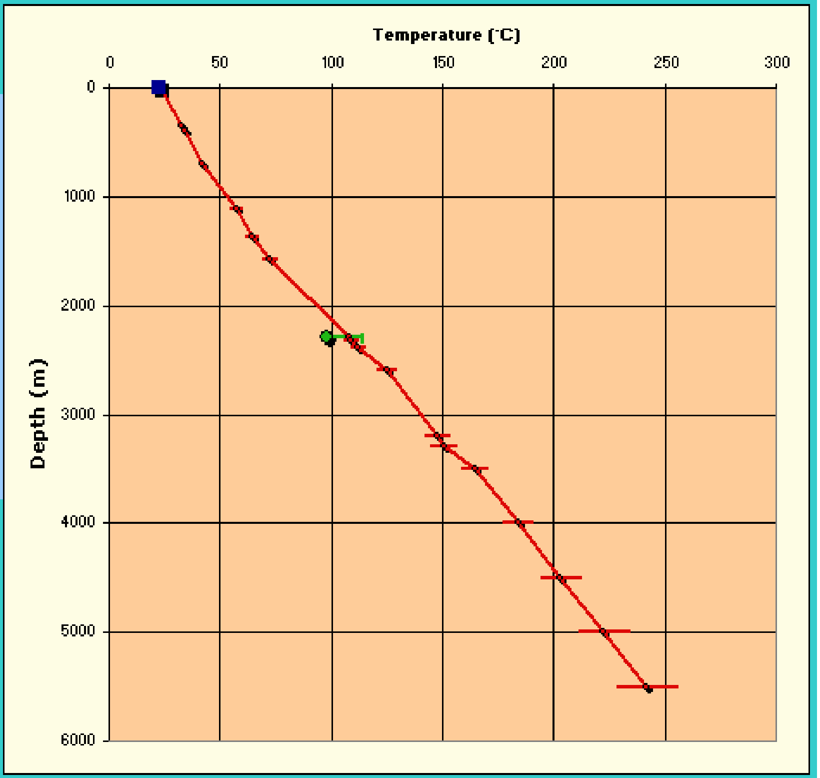


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
2030	81	0	14.21	BHT, ΔT is 8.83 hours

Number of layers	18	Up to 50	**Heat flow:** 94 ± 3.2 mW/m2
"Depth" to ground level	0	"KB height"	
Total Depth (m)	5500	From drilling datum	
Surface temp. (°C)	22.25	**East Lake Logue-2**	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	Coastal Limestone	0	1.42 ± 0.14
2	Yarragadee Formation	31	3.54 ± 0.30
3	Cadda Formation	350	4.14 ± 0.52
4	Cattamarra Coal Measure	392	3.73 ± 0.20
5	Eneabba Formation	698	2.62 ± 0.44
6	Lesueur Sandstone	1109	3.56 ± 0.23
7	Woodada Formation	1361	2.79 ± 0.12
8	Kockatea Shale	1577	2.09 ± 0.06
9	Beekeeper Formation	2298	2.25 ± 0.21
10	Beekeeper Formation	2316	2.25 ± 0.21
11	Carynginia Formation	2380	1.77 ± 0.36
12	Irwin River Coal Measures	2600	3.02 ± 0.50
13	High Cliff Sandstone	3200	4.40 ± 0.20
14	Holmwood Shale	3300	1.45 ± 0.15
15	Basement	3500	3.20 ± 0.40
16	Basement	4000	3.20 ± 0.40
17	Basement	4500	3.20 ± 0.40
18	Basement	5000	3.20 ± 0.40

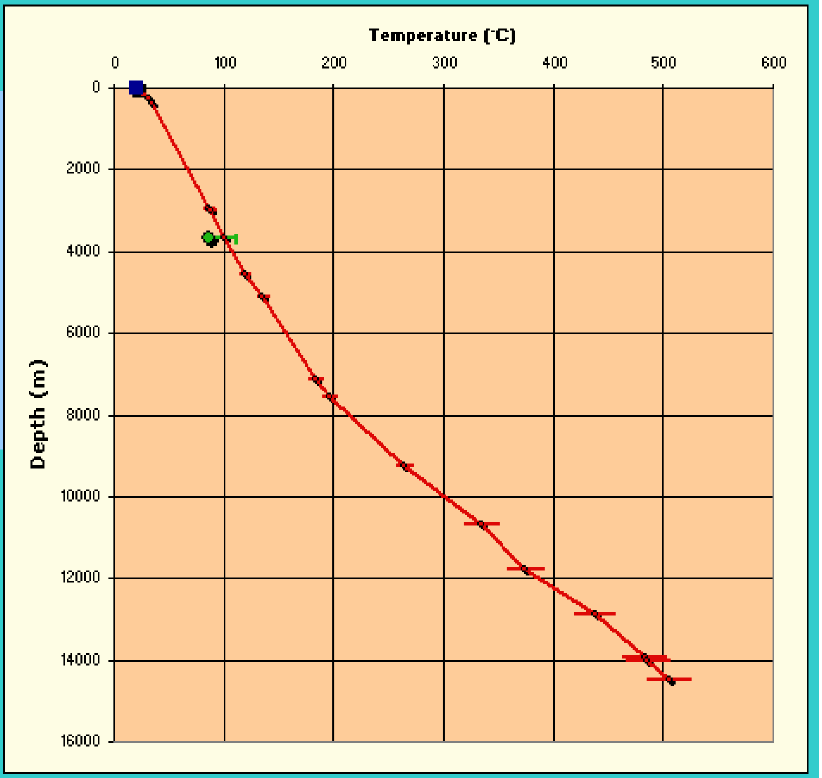


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
2291	98.3	0	16.037	BHT, ΔT is 13 hours

Number of layers	16	Up to 50	Heat flow:	65 ± 2.7 mW/m2
"Depth" to ground level	5	"KB height"		
Total Depth (m)	14500	From drilling datum		
Surface temp. (°C)	21	Eclipse-1		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		5	1.42 ± 0.14
2	Parmelia Group	248	2.58 ± 0.33
3	Yarragadee Formation	361	3.54 ± 0.30
4	Cadda Formation	2936	4.14 ± 0.52
5	Cattamarra Coal Measure	3015	3.73 ± 0.20
6	Catamarra Coal Measures	3660	3.73 ± 0.20
7	Eneabba Formation	4568	2.62 ± 0.44
8	Leseuer Sandstone	5123	3.56 ± 0.23
9	Woodada Formation	7120	2.79 ± 0.12
10	Kockatea Shale	7564	2.09 ± 0.06
11	Carynginia Formation	9228	1.77 ± 0.36
12	Irwin River Coal Measures	10670	3.02 ± 0.50
13	Holmwood Shale	11780	1.45 ± 0.15
14	Nangetty Formation	12890	2.75 ± 0.48
15	Wicherina Beds	13944	2.75 ± 0.48
16	Basement	14000	3.20 ± 0.40

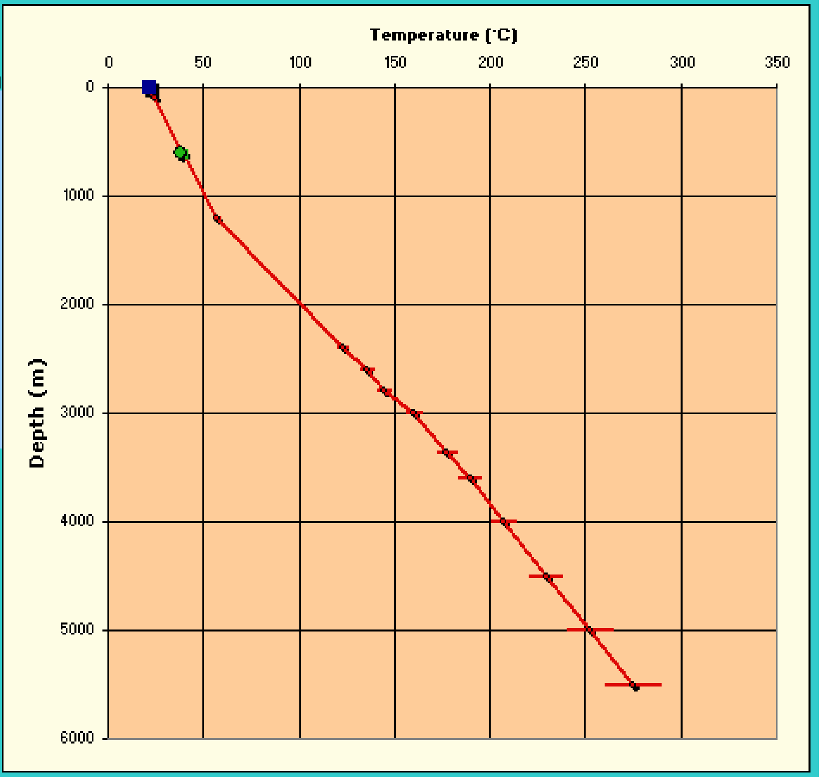


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
3657.5	86	0	25.603	BHT, ΔT is 12.58 hours

Number of layers	16	Up to 50	**Heat flow:** 104 ± 3.2 mW/m2
"Depth" to ground level	2	"KB height"	
Total Depth (m)	5500	From drilling datum	
Surface temp. (°C)	21.75	Eganu-1	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		2	3.54 ± 0.30
2	Yarragadee Formation	2	3.54 ± 0.30
3	Cattamarra Coal Measure	98	3.73 ± 0.20
4	Cattamarra Coal Measure	600	3.73 ± 0.20
5	Eneabba Formation	610	2.62 ± 0.44
6	Lesueur Sandstone	620	3.56 ± 0.23
7	Kockatea Shale	1200	2.09 ± 0.06
8	Carynginia Formation	2400	1.77 ± 0.36
9	Irwin River Coal Measures	2600	3.02 ± 0.50
10	Holmwood Shale	2800	1.45 ± 0.15
11	Nangetty Formation	3000	2.75 ± 0.48
12	Wicherina Beds	3360	2.75 ± 0.48
13	Basement	3600	3.20 ± 0.40
14	Basement	4000	3.20 ± 0.40
15	Basement	4500	3.20 ± 0.40
16	Basement	5000	3.20 ± 0.40

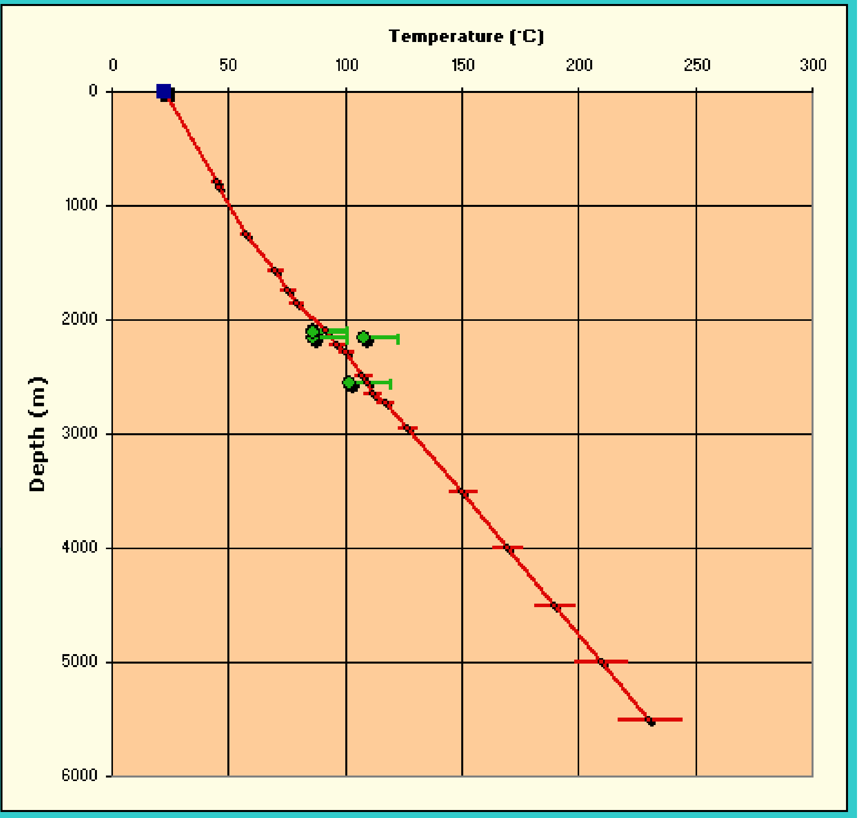


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
595.58	37.77	0	4.1691	BHT, ΔT not recorded

Number of layers	19	Up to 50	Heat flow: 97 ± 3.5 mW/m2
"Depth" to ground level	0	"KB height"	
Total Depth (m)	5500	From driling datum	
Surface temp. (°C)	22.5	Eremia-1	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	Yarragadee Forma	0	3.54 ± 0.30
2	Cadda Formation	800	4.14 ± 0.52
3	Cattamarra Coal I	840	3.73 ± 0.20
4	Eneabba Formatic	1260	2.62 ± 0.44
5	Lesueur Sandston	1575	3.56 ± 0.23
6	Woodada Formati	1750	2.79 ± 0.12
7	Kockatea Shale	1850	2.09 ± 0.06
8	Dongara Sandstoı	2096	2.92 ± 0.56
9	Caryngina Formal	2230	1.77 ± 0.36
10	Irwin River Coal M	2290	3.02 ± 0.50
11	High Cliff Sandstc	2490	4.40 ± 0.20
12	High Cliff Sandstc	2550	4.40 ± 0.20
13	Holmwood Shale	2650	1.45 ± 0.15
14	Nangetty Formatic	2725	2.75 ± 0.48
15	Wicherina Beds	2950	2.75 ± 0.48
16	Basement	3500	3.20 ± 0.40
17	Basement	4000	3.20 ± 0.40
18	Basement	4500	3.20 ± 0.40
19	Basement	5000	3.20 ± 0.40

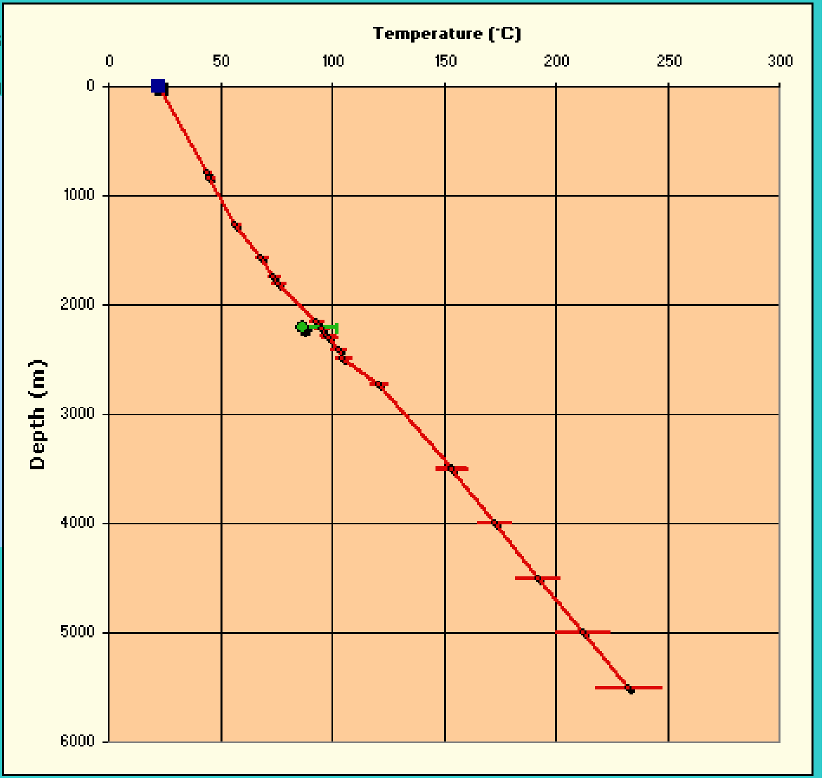


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
2160	86	0	15.12	BHT, ΔT is 11.55 hours
2095	86	0	14.665	BHT, ΔT is 18.58 hours
2110	86	0	14.77	BHT, ΔT is 28.25 hours
2550	102	0	17.85	BHT, ΔT is 10.25 hours
2155	108	0	15.085	BHT, ΔT not recorded

Number of layers	20	Up to 50	Heat flow:	95	± 3.7 mW/m2
"Depth" to ground level	6	"KB height"			
Total Depth (m)	5500	From drilling datum			
Surface temp. (°C)	22.5	Eremia-3	2725		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)	
1		6	3.54	± 0.30
2	Yarragadee Formation	6	3.54	± 0.30
3	Cadda Formation	796	4.14	± 0.52
4	Cattamarra Coal Measure	839	3.73	± 0.20
5	Eneabba Formation	1274	2.62	± 0.44
6	Lesueur Sandstone	1574	3.56	± 0.23
7	Woodada Formation	1753	2.79	± 0.12
8	Kockatea Shale	1813	2.09	± 0.06
9	Dongara Sandstone	2156	2.92	± 0.56
10	Dongara Sandstone	2216	2.92	± 0.56
11	Carynginia Formation	2290	1.77	± 0.36
12	Irwin River Coal Measures	2300	3.02	± 0.50
13	High Cliff Sandstone	2420	4.40	± 0.20
14	Holmwood Shale	2494	1.45	± 0.15
15	Nangetty Formation	2725	2.75	± 0.48
16	Wicherina Beds	3492	2.75	± 0.48
17	Basement	3500	3.20	± 0.40
18	Basement	4000	3.20	± 0.40
19	Basement	4500	3.20	± 0.40
20	Basement	5000	3.20	± 0.40

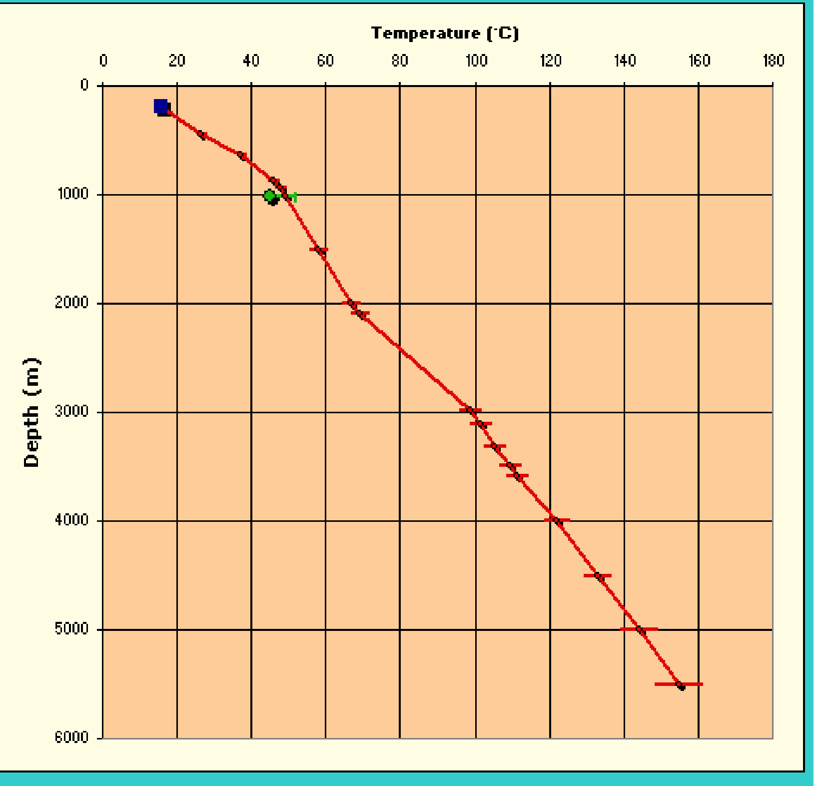


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
2201	87	0	15.407	BHT, ΔT is 8.33 hours

Number of layers	18	Up to 50	Heat flow: 60 ± 1.6 mW/m2
"Depth" to ground level	186	"KB height"	
Total Depth (m)	5500	From drilling datum	
Surface temp. (°C)	16	Felix-1	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		186	1.42 ± 0.14
2	Tertiary	186	1.42 ± 0.14
3	Coolyena Group	439	1.13 ± 0.08
4	South Perth Shale	640	1.71 ± 0.14
5	Gage Sandstone	877	1.93 ± 0.04
6	Yarragadee Formation	936	3.54 ± 0.30
7	Yarragadee Formation	1013	3.54 ± 0.30
8	Lesueur Sandstone	1500	3.56 ± 0.23
9	Sabina Sandstone	2000	2.79 ± 0.12
10	Willespie Formation	2100	1.96 ± 0.11
11	Redgate Coal Measures	2982	2.87 ± 0.09
12	Ashbrook Sandstone	3104	3.98 ± 0.24
13	Rosabrook Coal Measur	3322	2.87 ± 0.09
14	Woodynook Sandstone	3487	4.15 ± 0.28
15	Mosswood Formation	3588	2.75 ± 0.42
16	Basement	4000	3.20 ± 0.40
17	Basement	4500	3.20 ± 0.40
18	Basement	5000	3.20 ± 0.40

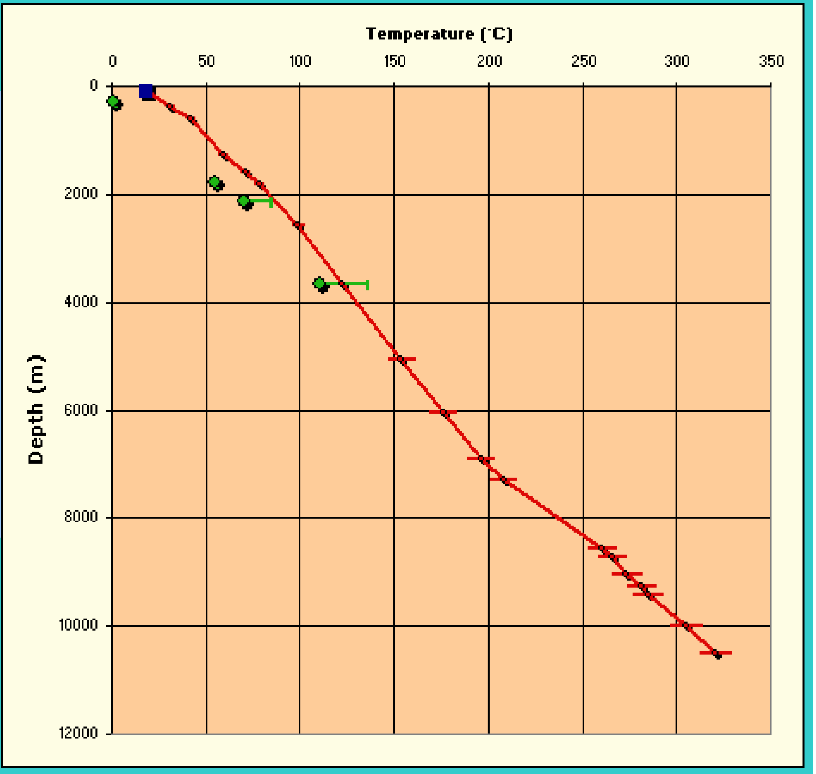


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1010.5	45	0	7.0735	BHT, ΔT is 6.16 hours

Number of layers	20	Up to 50	**Heat flow:** 63 ± 1.4 mW/m2
"Depth" to ground level	80	"KB height"	
Total Depth (m)	10500	From drilling datum	
Surface temp. (°C)	18	**Gage Roads-1**	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		80	1.42 ± 0.14
2	Pleistocene	80	1.42 ± 0.14
3	Miocene	101	1.42 ± 0.14
4	Stark Bay Formation	384	1.42 ± 0.14
5	Leederville Formation	617	2.56 ± 0.18
6	South Perth Shale	1280	1.71 ± 0.14
7	Gage Sandstone	1587	1.93 ± 0.04
8	Parmelia Group	1801	2.58 ± 0.33
9	Yarragadee Formation	2563	3.54 ± 0.30
10	Yarragadee Formation	3660	3.54 ± 0.30
11	Cattamarra Coal Measure	5063	3.73 ± 0.20
12	Lesueur Sandstone	6063	3.56 ± 0.23
13	Sabina Sandstone	6901	2.79 ± 0.12
14	Willespie Formation	7300	1.96 ± 0.11
15	Redgate Coal Measures	8553	2.87 ± 0.09
16	Ashbrook Sandstone	8725	3.98 ± 0.24
17	Rosabrook Coal Measure	9035	2.87 ± 0.09
18	Woodynook Sandstone	9269	4.15 ± 0.28
19	Mosswood Formation	9412	2.75 ± 0.42
20	Basement	10000	3.20 ± 0.40

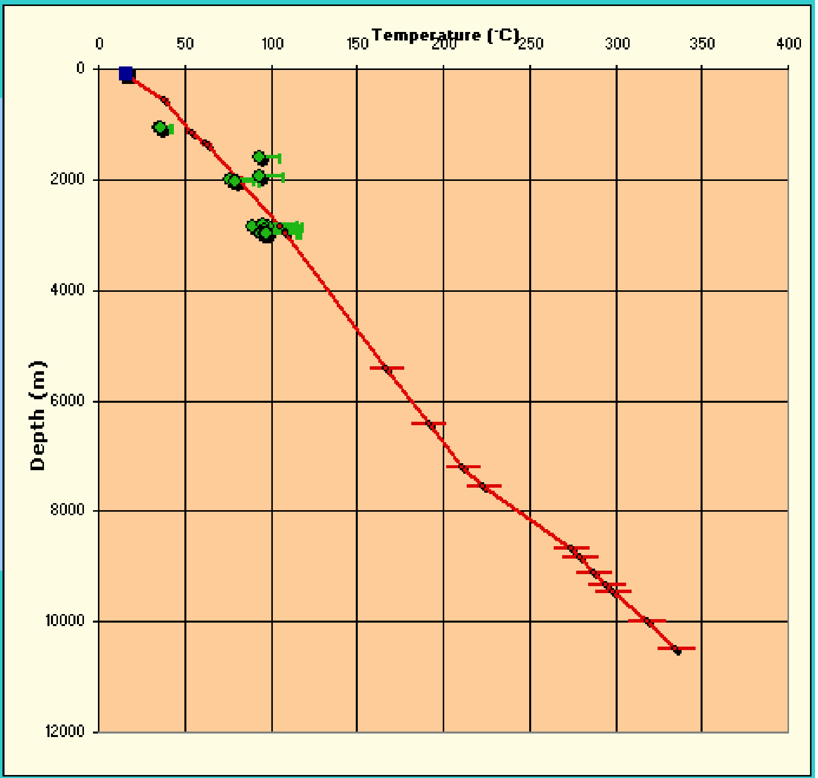


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1769	54.4	0	2	DST estimated; 'Cased hole test. Perfs @ 1760-1762,1765-1769m, Good immediate blow diminishing after 60 mins. Flowed intermittently. From both flow and swab periods a total of 40bbl 37?API oil and 82bbl water were recovered. Flow rate was calculated
299.92	1	0	2.0994	BHT, ΔT not recorded
2134.82	70	0	14.944	BHT, ΔT not recorded
3652.72	110.56	0	25.569	BHT, ΔT not recorded

Number of layers	21	Up to 50	**Heat flow:** 67 ± 1.8 mW/m2
"Depth" to ground level	103	"KB height"	
Total Depth (m)	10500	From drilling datum	
Surface temp. (°C)	16	**Gage Roads-2**	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		103	1.42 ± 0.14
2	Quaternary	103	1.42 ± 0.14
3	Tertiary	149	1.42 ± 0.14
4	Leederville Formation	577	2.56 ± 0.18
5	South Perth Shale	1148	1.71 ± 0.14
6	Gage Sandstone	1350	1.93 ± 0.04
7	Parmelia Group	1375	2.58 ± 0.33
8	Jervois Sandstone	1985	2.58 ± 0.33
9	Otorowiri Formation	2848	2.58 ± 0.33
10	Yarragadee Formation	2932	3.54 ± 0.30
11	Yarragadee Formation	2972	3.54 ± 0.30
12	Cattamarra Coal Measure	5432	3.73 ± 0.20
13	Lesueur Sandstone	6432	3.56 ± 0.23
14	Sabina Sandstone	7192	2.79 ± 0.12
15	Willespie Formation	7554	1.96 ± 0.11
16	Redgate Coal Measures	8689	2.87 ± 0.09
17	Ashbrook Sandstone	8845	3.98 ± 0.24
18	Rosabrook Coal Measure	9126	2.87 ± 0.09
19	Woodynook Sandstone	9338	4.15 ± 0.28
20	Mosswood Formation	9468	2.75 ± 0.42
21	Basement	10000	3.20 ± 0.40

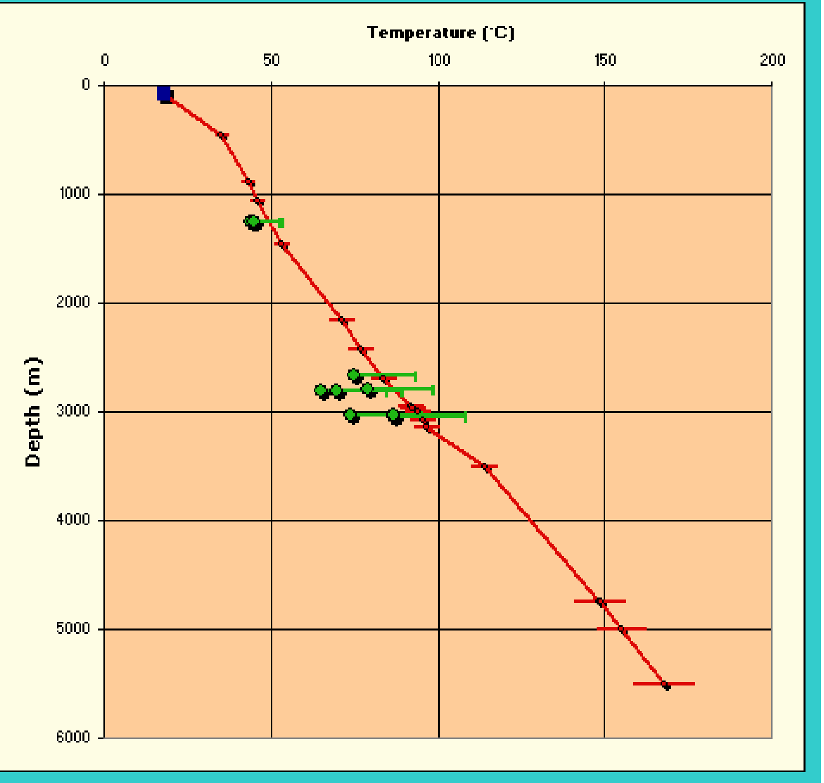


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1075.94	35	0	7.5316	BHT, ΔT not recorded
1074.42	36.11	0	7.5209	BHT, ΔT not recorded
1074.42	36.11	0	7.5209	BHT, ΔT not recorded
2020.52	76.67	0	14.144	BHT, ΔT not recorded
2021.43	79.44	0	14.15	BHT, ΔT not recorded
2021.43	79.44	0	14.15	BHT, ΔT not recorded
2837.38	89.44	0	19.862	BHT, ΔT not recorded
2834.34	95.56	0	19.84	BHT, ΔT not recorded
2836.46	98.89	0	19.855	BHT, ΔT not recorded
2834.33	95.56	0	19.84	BHT, ΔT not recorded
2919.07	96.11	0	20.433	BHT, ΔT not recorded
2962.66	94.44	0	20.739	BHT, ΔT not recorded
2965.4	96.11	0	20.758	BHT, ΔT not recorded
2962.65	97.22	0	20.739	BHT, ΔT not recorded
1600.2	93.89	0	11.201	BHT, ΔT not recorded
1950.72	93.89	0	13.655	BHT, ΔT not recorded

Number of layers	18	Up to 50	Heat flow:	64 ± 3.2 mW/m2
"Depth" to ground level	81	"KB height"		
Total Depth (m)	5500	From drilling datum		
Surface temp. (°C)	18	Geelvink-1A		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		81	1.42 ± 0.14
2	Recent	81	1.42 ± 0.14
3	Yarragadee Formation	463	3.54 ± 0.30
4	Cadda Formation	889	4.14 ± 0.52
5	Cattamarra Coal Measure	1058	3.73 ± 0.20
6	Eneabba Formation	1464	2.62 ± 0.44
7	Lesueur Sandstone	2158	3.56 ± 0.23
8	Woodada Formation	2429	2.79 ± 0.12
9	Kockatea Shale	2702	2.09 ± 0.06
10	Dongara Sandstone	2949	2.92 ± 0.56
11	Carynginia Formation	2969	1.77 ± 0.36
12	Irwin River Coal Measures	3003	3.02 ± 0.50
13	High Cliff Sandstone	3078	4.40 ± 0.20
14	Holmwood Shale	3147	1.45 ± 0.15
15	Nangetty Formation	3515	2.75 ± 0.48
16	Wicherina Beds	4740	2.75 ± 0.48
17	Basement	4750	3.20 ± 0.40
18	Basement	5000	3.20 ± 0.40

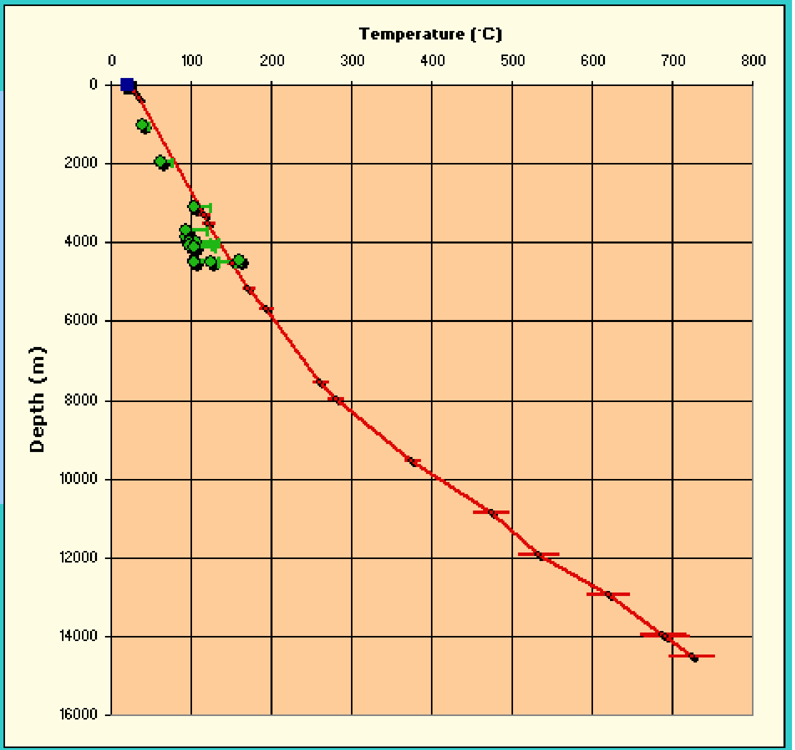


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1261.5	44	0	8.8305	BHT, ΔT not recorded
1259.5	45	0	8.8165	BHT, ΔT is 8.42 hours
2672	75	0	18.704	BHT, ΔT not recorded
2805	70	0	19.635	BHT, ΔT not recorded
2799	79	0	19.593	BHT, ΔT not recorded
2803	65	0	19.621	BHT, ΔT not recorded
3039	74	0	21.273	BHT, ΔT not recorded
3047	87	0	21.329	BHT, ΔT not recorded
3039	87	0	21.273	BHT, ΔT not recorded
3039	87	0	21.273	BHT, ΔT is 15.95 hours

Number of layers	19	Up to 50	**Heat flow:** 88 ± 3.6 mW/m2
"Depth" to ground level	5	"KB height"	
Total Depth (m)	14500	From drilling datum	
Surface temp. (°C)	21	Gingin-1	5688

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		5	1.42 ± 0.14
2	Quaternary Sandstone and I	5	1.42 ± 0.14
3	Megumber Formation	40	2.22 ± 0.16
4	Moochamullah Sandstone	94	2.22 ± 0.16
5	Parmelia Group	189	2.58 ± 0.33
6	Yarragadee Formation	356	3.54 ± 0.30
7	Cadda Formation	3314	4.14 ± 0.52
8	Cattamarra Coal Measures	3504	3.73 ± 0.20
9	Catamarra Coal Measures	4544	3.73 ± 0.20
10	Eneabba Formation	5168	2.62 ± 0.44
11	Leseuer Sandstone	5688	3.56 ± 0.23
12	Woodada Formation	7558	2.79 ± 0.12
13	Kockatea Shale	7974	2.09 ± 0.06
14	Carynginia Formation	9533	1.77 ± 0.36
15	Irwin River Coal Measures	10884	3.02 ± 0.50
16	Holmwood Shale	11923	1.45 ± 0.15
17	Nangetty Formation	12962	2.75 ± 0.48
18	Wicherina Beds	13949	2.75 ± 0.48
19	Basement	14000	3.20 ± 0.40



Downhole temperature data (°C):

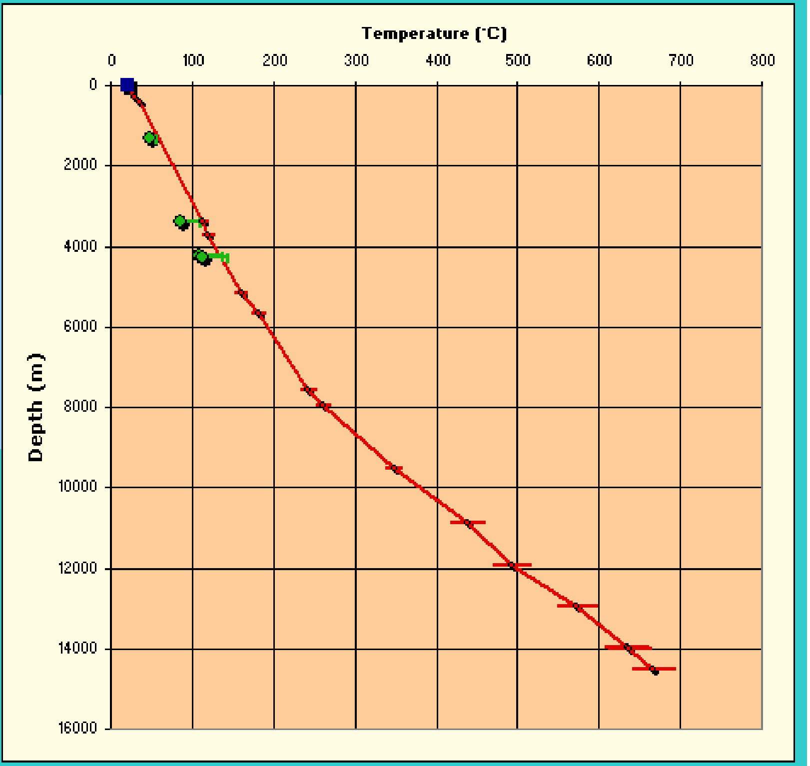
Depth (m)	Value	-uncert	+uncert	Comment:
4452.52	160	0	2	DST; 'Cased hole test. Gas to surface after 3 hours and remained steady to nd of test.
3873.7	93.3	0	2	DST; 'Cased hole test. Rec 5.36bbl 44.2? Condensate, 2.02 bbl formation water.
1004.6208	40	0	7.0323	BHT, ΔT not recorded
1002.792	40	0	7.0195	BHT, ΔT not recorded
1004.316	40	0	7.0302	BHT, ΔT not recorded
4495.8	124.44	0	31.471	BHT, ΔT not recorded
3973.068	107.22	0	27.811	BHT, ΔT not recorded
1949.8056	63	0	13.649	BHT, ΔT not recorded
1949.5008	62.78	0	13.647	BHT, ΔT not recorded
1950.4152	62.78	0	13.653	BHT, ΔT not recorded
3086.1	103.33	0	21.603	BHT, ΔT not recorded
3085.1856	103.33	0	21.596	BHT, ΔT not recorded
3089.148	103.33	0	21.624	BHT, ΔT not recorded

Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
3088.2336	103.33	0	21.618	BHT, ΔT not recorded
3688.6896	94.44	0	25.821	BHT, ΔT not recorded
3687.4704	94.44	0	25.812	BHT, ΔT not recorded
3688.6896	94.44	0	25.821	BHT, ΔT not recorded
4061.1552	97.78	0	28.428	BHT, ΔT not recorded
3968.1912	97.78	0	27.777	BHT, ΔT not recorded
4061.1552	97.78	0	28.428	BHT, ΔT not recorded
4507.992	103.33	0	31.556	BHT, ΔT not recorded
4472.6352	103.33	0	31.308	BHT, ΔT not recorded
4465.9296	103.33	0	31.262	BHT, ΔT not recorded
4451.2992	103.33	0	31.159	BHT, ΔT not recorded
4493.66	103.33	0	31.456	BHT, ΔT not recorded
4492.752	103.33	0	31.449	BHT, ΔT not recorded
4114.8	103.33	0	28.804	BHT, ΔT not recorded

Number of layers	16	Up to 50	**Heat flow:**	83 ± 3.4 mW/m2
"Depth" to ground level	5	"KB height"		
Total Depth (m)	14500	From drilling datum		
Surface temp. (°C)	21	Gingin-2	7558	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		5	2.58 ± 0.33
2	Jervoise Sandstone	280	2.58 ± 0.33
3	Otorowiri Formation	401	2.58 ± 0.33
4	Yarragadee Formation	430	3.54 ± 0.30
5	Cadda Formation	3399	4.14 ± 0.52
6	Catamarra Coal Measure:	3713	3.73 ± 0.20
7	Eneabba Formation	5168	2.62 ± 0.44
8	Leseuer Sandstone	5688	3.56 ± 0.23
9	Woodada Formation	7558	2.79 ± 0.12
10	Kockatea Shale	7974	2.09 ± 0.06
11	Carynginia Formation	9533	1.77 ± 0.36
12	Irwin River Coal Measure:	10884	3.02 ± 0.50
13	Holmwood Shale	11923	1.45 ± 0.15
14	Nangetty Formation	12962	2.75 ± 0.48
15	Wicherina Beds	13949	2.75 ± 0.48
16	Basement	14000	3.20 ± 0.40

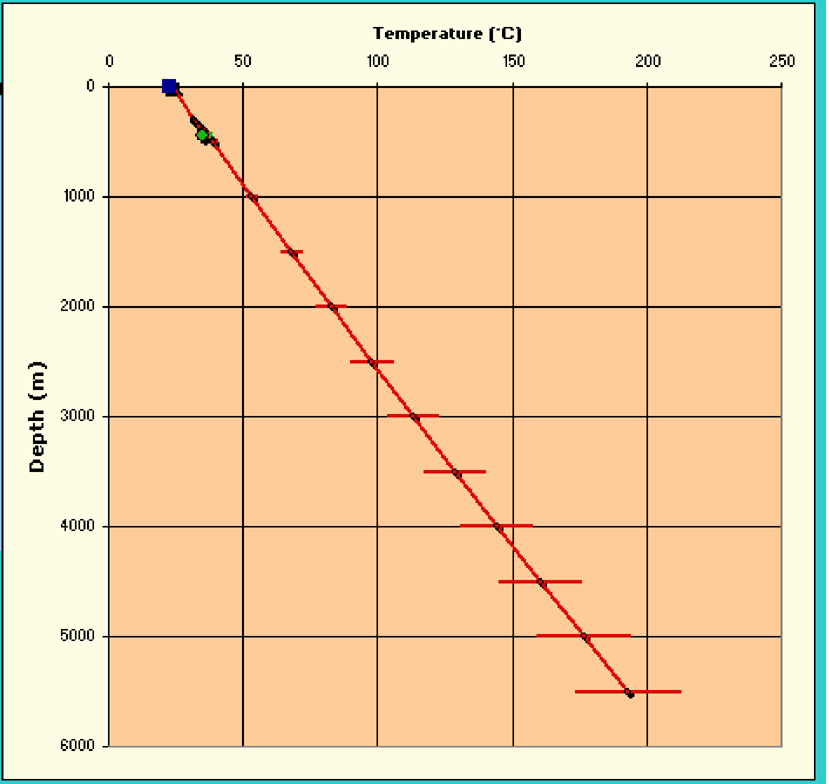


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1292.96	48.33	0	9.0507	BHT, ΔT not recorded
3397.3	86.67	0	23.781	BHT, ΔT not recorded
4220.26	108.89	0	29.542	BHT, ΔT not recorded
4272.69	113.33	0	29.909	BHT, ΔT not recorded

Number of layers	20	Up to 50	Heat flow: 88 ± 3.2 mW/m2
"Depth" to ground level	5	"KB height"	
Total Depth (m)	5500	From drilling datum	
Surface temp. (°C)	22.875	Greenough-1	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	Quaternary	5	1.42 ± 0.14
2	Cattamarra Coal Measure	48	3.73 ± 0.20
3	Kockatea Shale	306	2.09 ± 0.06
4	Wagina Sandstone	314	2.92 ± 0.56
5	Carynginia Formation	324	1.77 ± 0.36
6	Irwin River Coal Measures	337	3.02 ± 0.50
7	High Cliff Sandstone	354	4.40 ± 0.20
8	Holmwood Shale	360	1.45 ± 0.15
9	Nangetty Formation	392	2.75 ± 0.48
10	Wicherina Beds	499	2.75 ± 0.48
11	Basement	500	3.20 ± 0.40
12	Basement	1000	3.20 ± 0.40
13	Basement	1500	3.20 ± 0.40
14	Basement	2000	3.20 ± 0.40
15	Basement	2500	3.20 ± 0.40
16	Basement	3000	3.20 ± 0.40
17	Basement	3500	3.20 ± 0.40
18	Basement	4000	3.20 ± 0.40
19	Basement	4500	3.20 ± 0.40
20	Basement	5000	3.20 ± 0.40

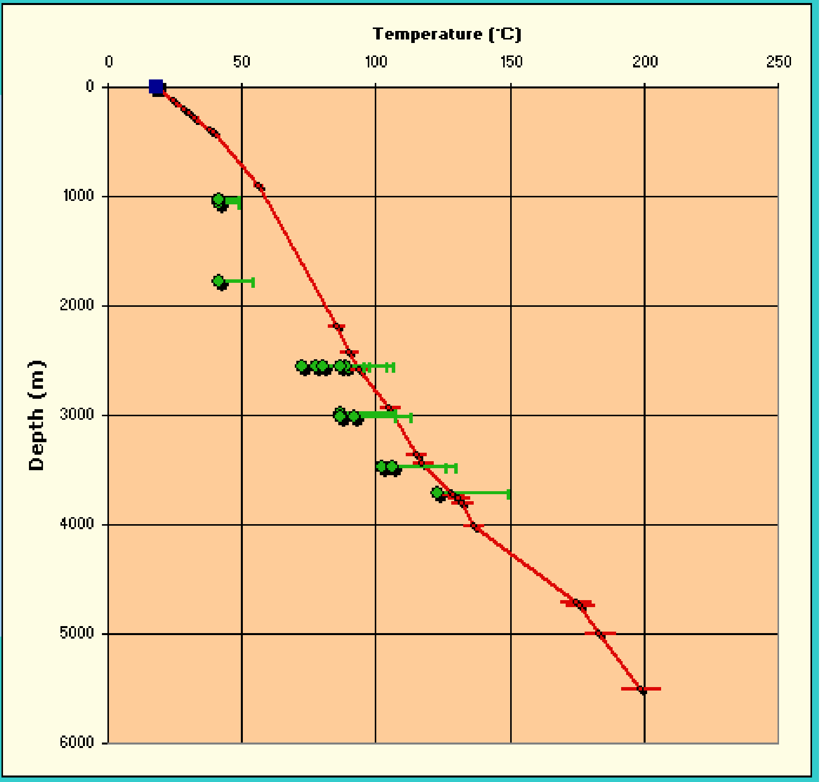


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
441	35	0	3.087	BHT, ΔT not recorded
440	35	0	3.08	BHT, ΔT not recorded
441	35	0	3.087	BHT, ΔT not recorded

Number of layers	24	Up to 50	Heat flow: 73 ± 2.3 mW/m2
"Depth" to ground level	4	"KB height"	
Total Depth (m)	5500	From drilling datum	
Surface temp. (°C)	18	Gun Island-1	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		4	1.42 ± 0.14
2	coastal Limestone	4	1.42 ± 0.14
3	upper Miocene	130	1.42 ± 0.14
4	Trealla Limestone	205	1.42 ± 0.14
5	Paleocene Dolomite	246	1.42 ± 0.14
6	Upper Cardabia Group	288	1.42 ± 0.14
7	Miria Marl Formation	391	1.42 ± 0.14
8	Warnbro Group	418	2.22 ± 0.16
9	Yarragadee Formation	908	3.54 ± 0.30
10	Cadda Formation	2187	4.14 ± 0.52
11	Cattamarra Coal Measure	2429	3.73 ± 0.20
12	Eneabba Formation	2585	2.62 ± 0.44
13	Leseuer Sandstone	2944	3.56 ± 0.23
14	Woodada Formation	3362	2.79 ± 0.12
15	Kockatea Shale	3437	2.09 ± 0.06
16	Dongara Sandstone	3707	2.92 ± 0.56
17	Carynginia Formation	3726	1.77 ± 0.36
18	Irwin River Coal Measures	3769	3.02 ± 0.50
19	High Cliff Sandstone	3808	4.40 ± 0.20
20	Holmwood Shale	4017	1.45 ± 0.15
21	Nangetty Formation	4709	2.75 ± 0.48
22	Wicherina Beds	4720	2.75 ± 0.48
23	Basement	4750	3.20 ± 0.40
24	Basement	5000	3.20 ± 0.40

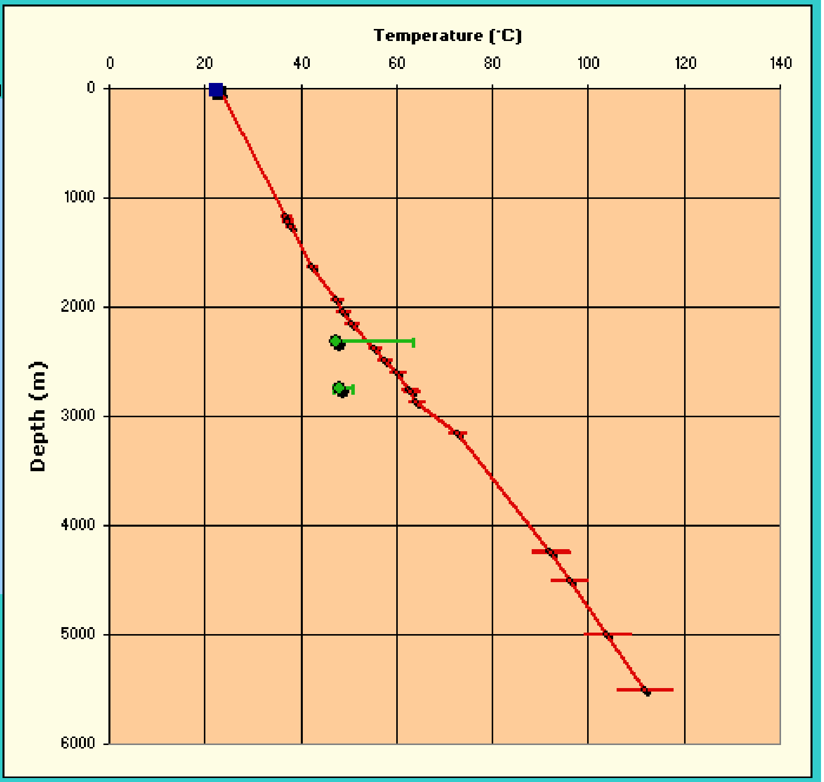


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1774	41.67	0	12.418	BHT, ΔT not recorded
1062.84	41.66	0	7.4399	BHT, ΔT not recorded
1066.19	41.67	0	7.4633	BHT, ΔT not recorded
1036.32	41.67	0	7.2542	BHT, ΔT not recorded
2555.75	72.22	0	17.89	BHT, ΔT not recorded
2552.7	77.78	0	17.869	BHT, ΔT not recorded
2555.13	80	0	17.886	BHT, ΔT not recorded
2553	88.89	0	17.871	BHT, ΔT not recorded
2554.22	86.67	0	17.88	BHT, ΔT not recorded
2977.9	86.67	0	20.845	BHT, ΔT not recorded
3008.98	86.66	0	21.063	BHT, ΔT not recorded
3016.91	86.67	0	21.118	BHT, ΔT not recorded
3020.57	92.22	0	21.144	BHT, ΔT not recorded
3019.96	92.22	0	21.14	BHT, ΔT not recorded
3473.5	102.22	0	24.315	BHT, ΔT not recorded
3469.23	106.11	0	24.285	BHT, ΔT not recorded
3721.3	123.33	0	26.049	BHT, ΔT not recorded
3718.56	123.33	0	26.03	BHT, ΔT not recorded
3719.17	123.33	0	26.034	BHT, ΔT not recorded
3721.08	123.33	0	26.048	BHT, ΔT not recorded
3718.56	123.33	0	26.03	BHT, ΔT not recorded
3717.95	123.33	0	26.026	BHT, ΔT not recorded
3718.86	123.33	0	26.032	BHT, ΔT not recorded

Number of layers	22	Up to 50	Heat flow:	44 ± 2.0 mW/m2
"Depth" to ground level	8	"KB height"		
Total Depth (m)	5500	From drilling datum		
Surface temp. (°C)	22.5	Hakia-1		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		8	1.42 ± 0.14
2	Recent	8	1.42 ± 0.14
3	Yarragadee Formation	45	3.81 ± 0.30
4	Cadda Formation	1174	4.17 ± 0.52
5	Newmarracarra Limestone	1205	4.17 ± 0.52
6	Colalura Sandstone	1216	4.17 ± 0.52
7	Cattamarra Coal Measure	1263	3.84 ± 0.20
8	Eneabba Formation	1641	2.62 ± 0.44
9	Lesueur Sandstone	1943	3.67 ± 0.23
10	Woodada Formation	2050	2.79 ± 0.12
11	Kockatea Shale	2154	2.09 ± 0.06
12	Dongara Sandstone	2377	2.92 ± 0.56
13	Carynginia Formation	2493	1.77 ± 0.36
14	Irwin River Coal Measures	2602	3.02 ± 0.50
15	Irwin River Coal Measures	2763	3.02 ± 0.50
16	High Cliff Sandstone	2780	4.40 ± 0.20
17	Holmwood Shale	2880	1.45 ± 0.15
18	Nangetty Formation	3157	2.75 ± 0.48
19	Wicherina Beds	4239	2.75 ± 0.48
20	Basement	4250	3.20 ± 0.40
21	Basement	4500	3.20 ± 0.40
22	Basement	5000	3.20 ± 0.40

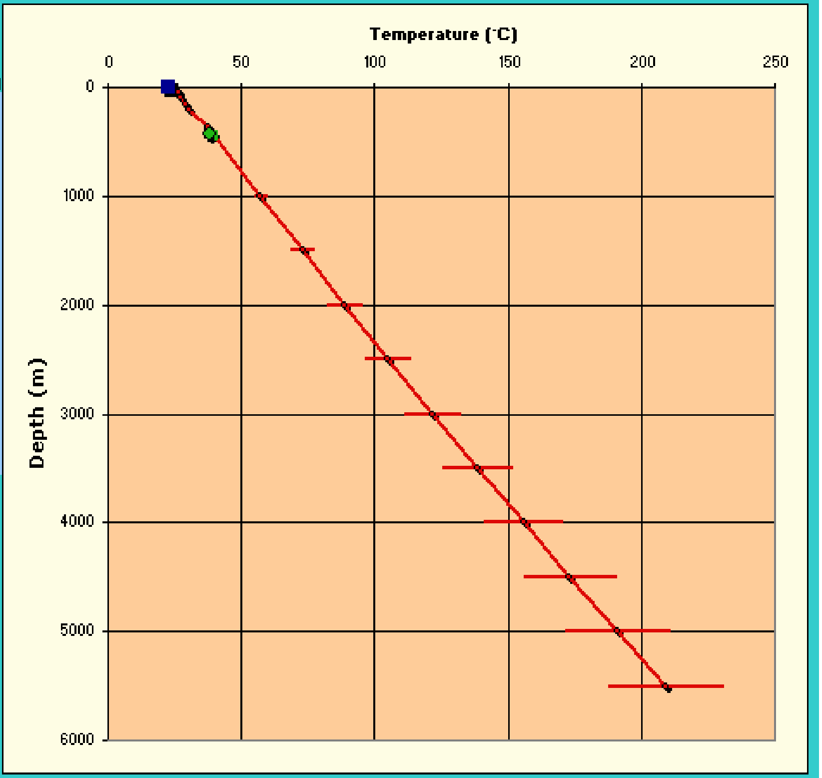


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
2739	48.01	1	3	Horner corrected, depths averaged
2325	47.22	0	16.275	BHT, ΔT not recorded

Number of layers	17	Up to 50	Heat flow:	94	± 3.5 mW/m2
"Depth" to ground level	3	"KB height"			
Total Depth (m)	5500	From drilling datum			
Surface temp. (°C)	22.875	Hampton Arms-1			

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		3	1.42 ± 0.14
2	Quaternary	3	1.42 ± 0.14
3	Tamala Limestone	30	1.42 ± 0.14
4	Yarragadee Formation	55	3.54 ± 0.30
5	Cattamarra Coal Measure	88	3.73 ± 0.20
6	Eneabba Formation	163	2.62 ± 0.44
7	Kockatea Shale	209	2.09 ± 0.06
8	Basement	363	3.20 ± 0.40
9	Basement	1000	3.20 ± 0.40
10	Basement	1500	3.20 ± 0.40
11	Basement	2000	3.20 ± 0.40
12	Basement	2500	3.20 ± 0.40
13	Basement	3000	3.20 ± 0.40
14	Basement	3500	3.20 ± 0.40
15	Basement	4000	3.20 ± 0.40
16	Basement	4500	3.20 ± 0.40
17	Basement	5000	3.20 ± 0.40

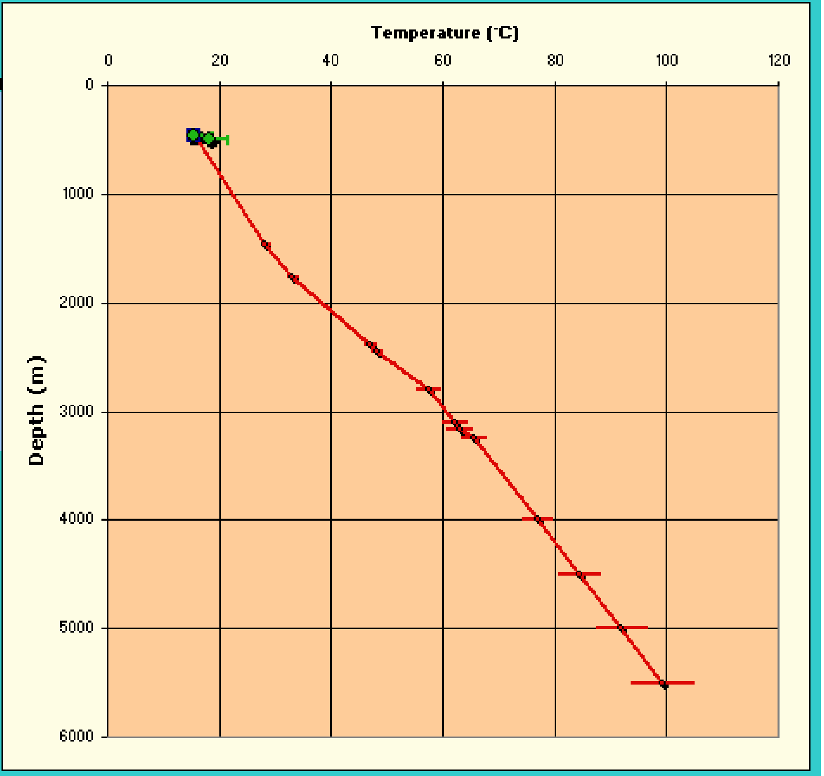


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
436	38	0	3.052	BHT, ΔT not recorded
436	38	0	3.052	BHT, ΔT not recorded

Number of layers	16	Up to 50	**Heat flow:**	45 ± 1.7 mW/m2
"Depth" to ground level	463	"KB height"		
Total Depth (m)	5500	From drilling datum		
Surface temp. (°C)	15.56	**Hill river-2**		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		463	1.42 ± 0.14
2	Cattamarra Coal Measure	463	3.73 ± 0.20
3	Eneabba Formation	463	2.62 ± 0.44
4	Eneabba Formation	494	2.62 ± 0.44
5	Lesueur Sandstone	500	3.56 ± 0.23
6	Woodada Formation	1460	2.79 ± 0.12
7	Kockatea Shale	1760	2.09 ± 0.06
8	Beekeeper Formation	2390	2.25 ± 0.21
9	Caryngninia Formation	2450	1.77 ± 0.36
10	Irwin River Coal Measures	2800	3.02 ± 0.50
11	High Cliff Sandstone	3100	4.40 ± 0.20
12	Holmwood Shale	3170	1.45 ± 0.15
13	Basement	3250	3.20 ± 0.40
14	Basement	4000	3.20 ± 0.40
15	Basement	4500	3.20 ± 0.40
16	Basement	5000	3.20 ± 0.40

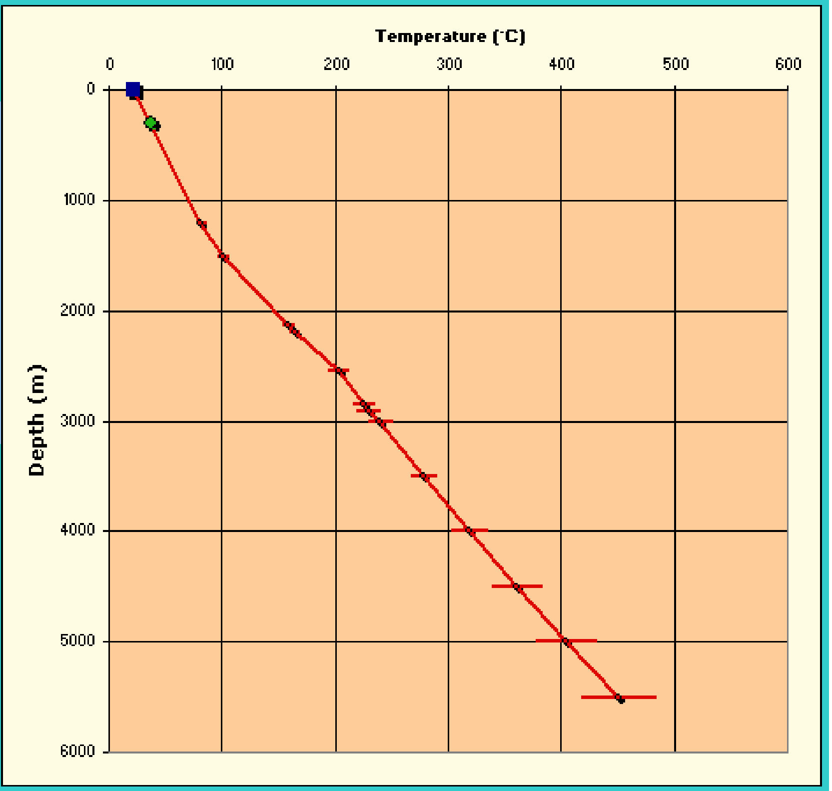


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
462.69	15.56	0	3.2388	BHT, ΔT not recorded
493.78	18.33	0	3.4565	BHT, ΔT not recorded

Number of layers	15	Up to 50	Heat flow: 165 ± 5.8 mW/m2
"Depth" to ground level	0	"KB height"	
Total Depth (m)	5500	From drilling datum	
Surface temp. (°C)	21.75	Hill River-4	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		0	3.56 ± 0.23
2	Lesueur Sandstone	0	3.56 ± 0.23
3	Lesueur Sandstone	308	3.56 ± 0.23
4	Woodada Formation	1210	2.79 ± 0.12
5	Kockatea Shale	1510	2.09 ± 0.06
6	Beekeeper Formation	2140	2.25 ± 0.21
7	Carynginia Formation	2200	1.77 ± 0.36
8	Irwin River Coal Measu	2550	3.02 ± 0.50
9	High Cliff Sandstone	2850	4.40 ± 0.20
10	Holmwood Shale	2920	1.45 ± 0.15
11	Basement	3000	3.20 ± 0.40
12	Basement	3500	3.20 ± 0.40
13	Basement	4000	3.20 ± 0.40
14	Basement	4500	3.20 ± 0.40
15	Basement	5000	3.20 ± 0.40



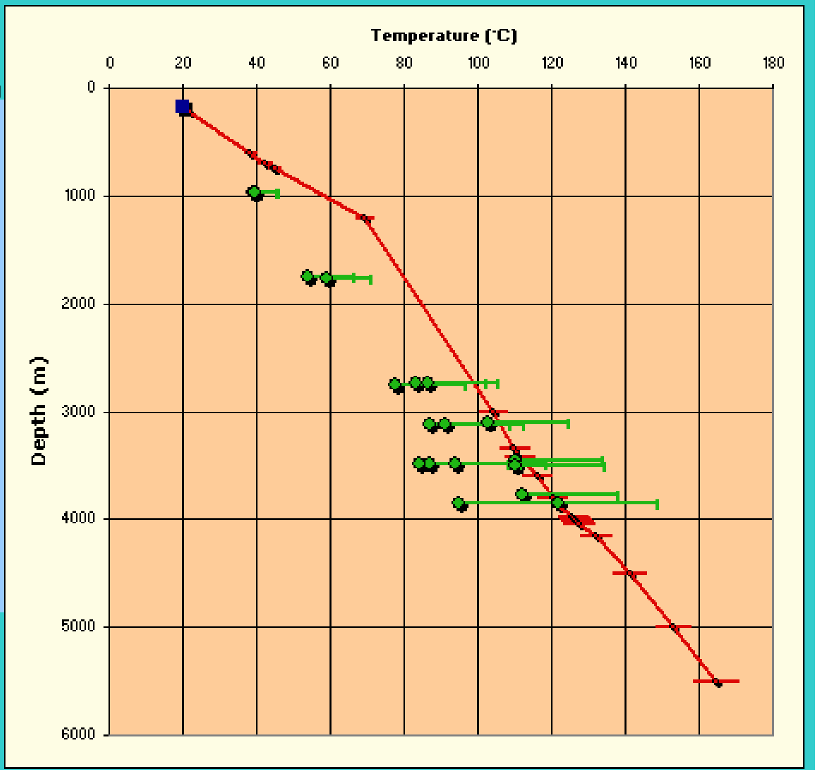
Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
303.27	37.78	0	2.1229	BHT, ΔT not recorded

Number of layers	23	Up to 50
"Depth" to ground level	177	"KB height"
Total Depth (m)	5500	From driling datum
Surface temp. (°C)	20	Houtman-1

Heat flow: 60 ± 2.0 mW/m2

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		177	1.42 ± 0.14
2	Recent	177	1.42 ± 0.14
3	Eocene	220	1.42 ± 0.14
4	Tertiary	610	1.42 ± 0.14
5	Korojon Calcarenite	705	1.13 ± 0.08
6	Poison Hill Greensand	751	1.13 ± 0.08
7	Dandaragan Sandstone	753	1.13 ± 0.08
8	Yarragadee Formation	1215	3.54 ± 0.30
9	Cadda Formation	3012	4.14 ± 0.52
10	Cattamarra Coal Measure	3342	3.73 ± 0.20
11	Eneabba Formation	3420	2.62 ± 0.44
12	Leseuer Sandstone	3599	3.56 ± 0.23
13	Woodada Formation	3808	2.79 ± 0.12
14	Kockatea Shale	3846	2.09 ± 0.06
15	Dongara Sandstone	3980	2.92 ± 0.56
16	Carynginia Formation	3999	1.77 ± 0.36
17	Irwin River Coal Measures	4009	3.02 ± 0.50
18	High Cliff Sandstone	4030	4.40 ± 0.20
19	Holmwood Shale	4050	1.45 ± 0.15
20	Nangetty Formation	4154	2.75 ± 0.48
21	Wicherina Beds	4499	2.75 ± 0.48
22	Basement	4500	3.20 ± 0.40
23	Basement	5000	3.20 ± 0.40

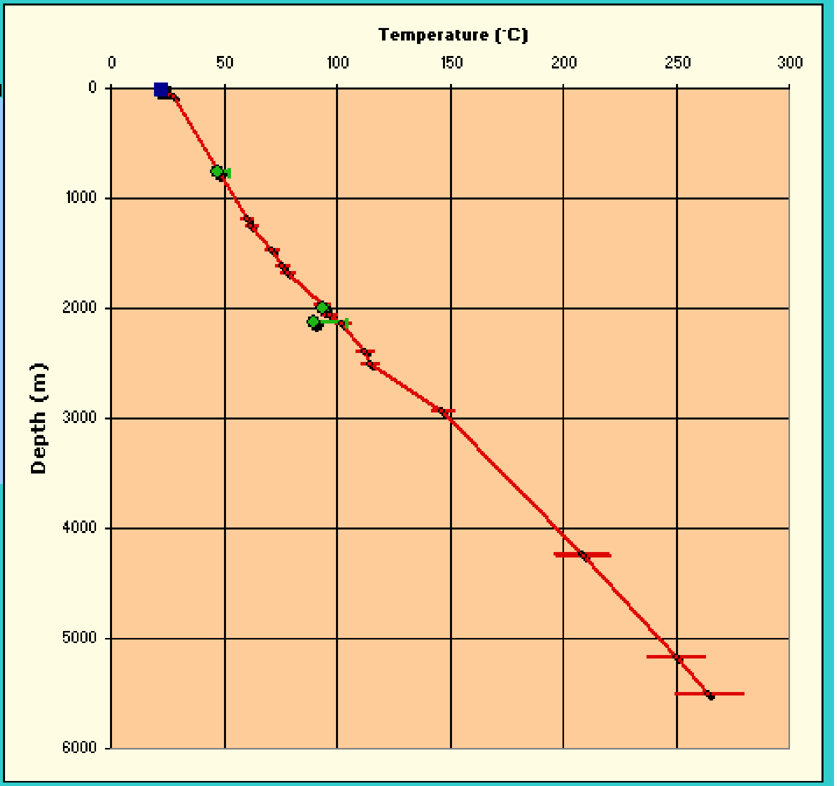


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
3767	112	0	26.369	BHT, ΔT is 49.16 hours
968.3	39	0	6.7781	BHT, ΔT not recorded
969	39.44	0	6.783	BHT, ΔT not recorded
1757.5	54	0	12.303	BHT, ΔT not recorded
1759.4	58.89	0	12.316	BHT, ΔT not recorded
2746	77.5	0	19.222	BHT, ΔT not recorded
2743.5	83.3	0	19.205	BHT, ΔT not recorded
2741	86.6	0	19.187	BHT, ΔT not recorded
3115.5	87	0	21.809	BHT, ΔT not recorded
3112	91	0	21.784	BHT, ΔT not recorded
3109	103	0	21.763	BHT, ΔT not recorded
3493	87	0	24.451	BHT, ΔT not recorded
3492	94	0	24.444	BHT, ΔT not recorded
3490	84	0	24.43	BHT, ΔT not recorded
3447	110	0	24.129	BHT, ΔT not recorded
3496	110	0	24.472	BHT, ΔT not recorded
3851	95	0	26.957	BHT, ΔT not recorded
3846.5	122	0	26.926	BHT, ΔT not recorded
3848.5	95	0	26.94	BHT, ΔT not recorded

Number of layers	17	Up to 50	**Heat flow:** 100 ± 5.4 mW/m2
"Depth" to ground level	8	"KB height"	
Total Depth (m)	5500	From drilling datum	
Surface temp. (°C)	22.5	**Hovea-1**	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		8	1.42 ± 0.14
2	Coastal Limestone	8	1.42 ± 0.14
3	Yarragadee Formation	84	3.54 ± 0.30
4	Cadda Formation	1183	4.14 ± 0.52
5	Eneabba Formation	1255	2.62 ± 0.44
6	Lesueur Sandstone	1484	3.56 ± 0.23
7	Woodada Formation	1618	2.79 ± 0.12
8	Kockatea Shale	1687	2.09 ± 0.06
9	Dongara Sandstone	1974	2.92 ± 0.56
10	Carynginia Formation	2060	1.77 ± 0.36
11	Irwin River Coal Measu	2150	3.02 ± 0.50
12	High Cliff Sandstone	2400	4.40 ± 0.20
13	Holmwood Shale	2500	1.45 ± 0.15
14	Nangetty Formation	2929	2.75 ± 0.48
15	Wicherina Beds	4237	2.75 ± 0.48
16	Basement	4250	3.20 ± 0.40
17	Basement	5180	3.20 ± 0.40

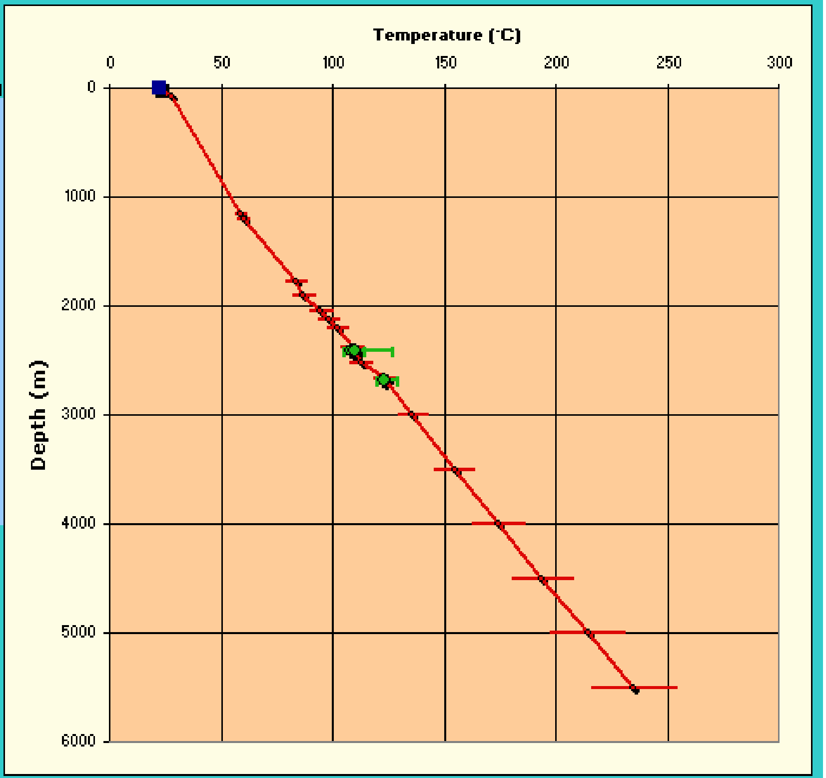


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
2002	93.8	0	2	DST; 'DST 1 (inflate straddle) - Flowed oil to surface after 51 min. A total of 19.4 kL of 41.6 degree API oil was recovered during the test period at an average flow rate of 151.04 kL p/d with associated gas at 2.83 km3 p/d through a 12.7mm choke. There were no indications of reservoir depletion and no water was recovered during the test.
762.7	47	0	5.3389	BHT, ΔT not recorded
2133.1	90	0	14.932	BHT, ΔT not recorded
2133.1	90	0	14.932	BHT, ΔT not recorded

Number of layers	19	Up to 50	**Heat flow:** 98 ± 3.6 mW/m2
"Depth" to ground level	0	"KB height"	
Total Depth (m)	5500	From drilling datum	
Surface temp. (°C)	22.5	**Hovea-2**	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		0	1.42 ± 0.14
2	Coastal Limestone	8	1.42 ± 0.14
3	Yarragadee Formation	76	3.54 ± 0.30
4	Cadda Formation	1156	4.14 ± 0.52
5	Cattamarra Coal Measure	1208	2.62 ± 0.44
6	Eneabba Formation	1783	3.56 ± 0.23
7	Kockatea Shale	1897	2.09 ± 0.06
8	Dongara Sandstone	2047	2.92 ± 0.56
9	Carynginia Formation	2133	1.77 ± 0.36
10	Irwin River Coal Measures	2203	3.02 ± 0.50
11	High Cliff Sandstone	2380	4.40 ± 0.20
12	Holmwood Shale	2525	1.45 ± 0.15
13	Basement	2673	3.20 ± 0.40
14	Basement	2690	3.20 ± 0.40
15	Basement	3000	3.20 ± 0.40
16	Basement	3500	3.20 ± 0.40
17	Basement	4000	3.20 ± 0.40
18	Basement	4500	3.20 ± 0.40
19	Basement	5000	3.20 ± 0.40

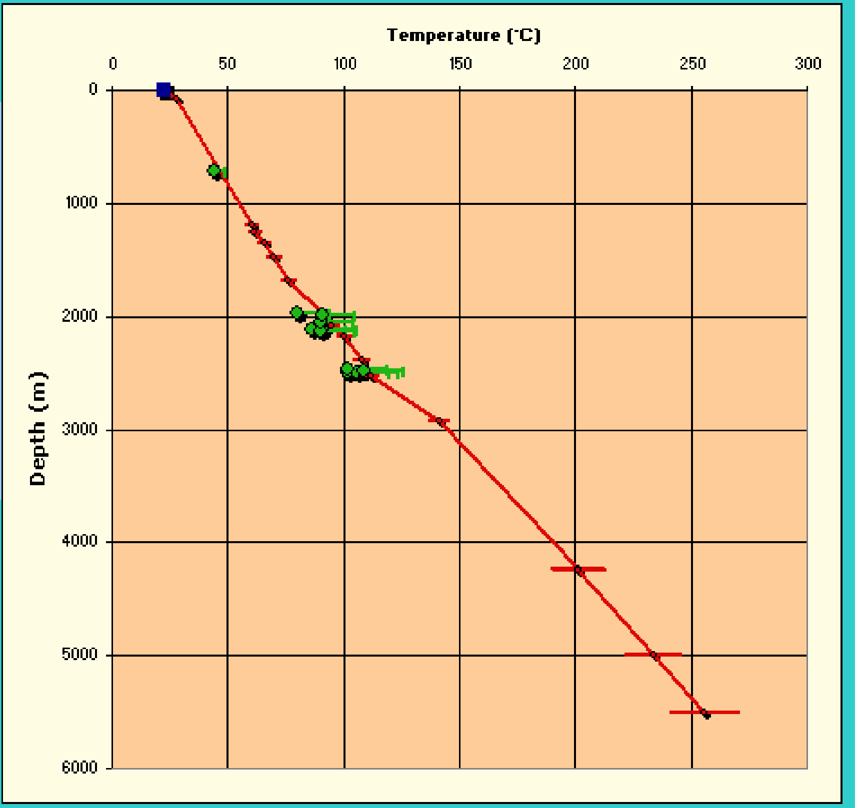


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
2412.5	108.5	3	6	Horner corrected, averaged depths
2680.5	123.2	3	6	Horner corrected, averaged depths
2405	110	0	16.835	BHT, ΔT is 26.03 hours

Number of layers	17	Up to 50	**Heat flow:** 98 ± 5.2 mW/m2
"Depth" to ground level	0	"KB height"	
Total Depth (m)	5500	From drilling datum	
Surface temp. (°C)	22.5	Hovea-3	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		0	1.42 ± 0.14
2	Coastal Limestone	8	1.42 ± 0.14
3	Yarragadee Formal	83	3.54 ± 0.30
4	Cadda Formation	1190	4.14 ± 0.52
5	Cattamarra Coal M	1250	2.62 ± 0.44
6	Eneabba Formatio	1353	3.56 ± 0.23
7	Lesueur Sandstone	1487	3.67 ± 0.23
8	Kockatea Shale	1692	2.09 ± 0.06
9	Dongara Sandston	1992	2.92 ± 0.56
10	Carynginia Formati	2089	1.77 ± 0.36
11	Irwin River Coal M	2175	3.02 ± 0.50
12	High Cliff Sandsto	2380	4.40 ± 0.20
13	Holmwood Shale	2525	1.45 ± 0.15
14	Nangetty Formatio	2929	2.75 ± 0.48
15	Wicherina Beds	4237	2.75 ± 0.48
16	Basement	4250	3.20 ± 0.40
17	Basement	5000	3.20 ± 0.40

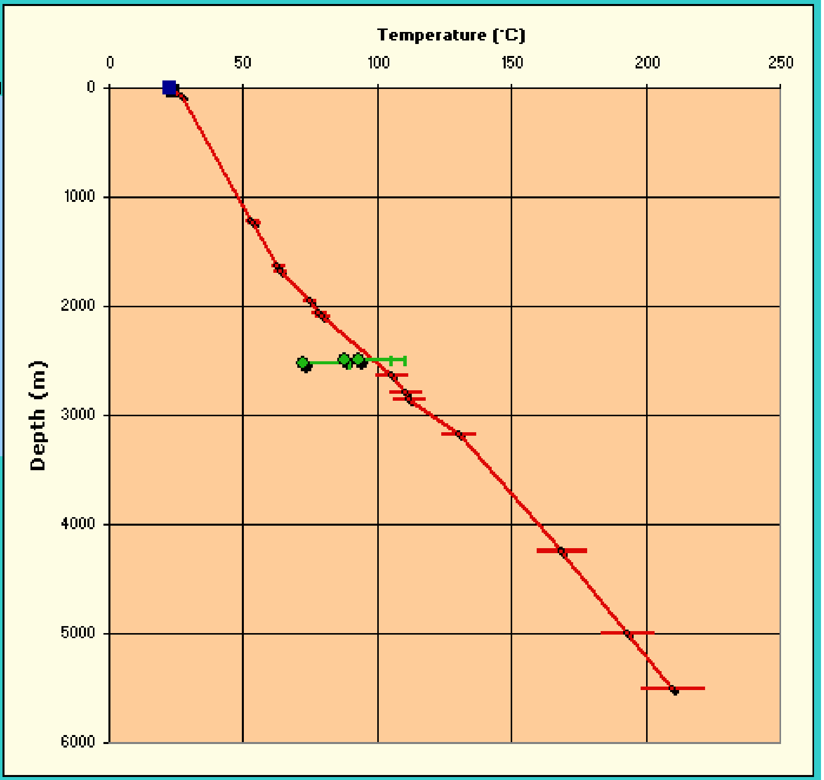


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
712	44	0	4.984	BHT, ΔT not recorded
1979	80	0	13.853	BHT, ΔT not recorded
2114	86	0	14.798	BHT, ΔT not recorded
2122	91	0	14.854	BHT, ΔT not recorded
2125	90	0	14.875	BHT, ΔT not recorded
2049	90	0	14.343	BHT, ΔT not recorded
1987	91	0	13.909	BHT, ΔT not recorded
2500	102	0	17.5	BHT, ΔT not recorded
2496	106	0	17.472	BHT, ΔT not recorded
2477	108.5	0	17.339	BHT, ΔT not recorded
2467	102	0	17.269	BHT, ΔT not recorded

Number of layers	16	Up to 50	**Heat flow:**	**79 ± 4.1 mW/m2**
"Depth" to ground level	0	"KB height"		
Total Depth (m)	5500	From drilling datum		
Surface temp. (°C)	22.5	**Hovea-4**		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	coastal limestone	0	1.42 ± 0.14
2	Yarragadee Formation	80	3.54 ± 0.30
3	Cadda Formation	1219	4.14 ± 0.52
4	Cattamarra Coal Measure	1242	3.73 ± 0.20
5	Leseuer Sandstone	1642	3.56 ± 0.23
6	Kockatea Shale	1675	2.09 ± 0.06
7	Dongara Sandstone	1952	2.92 ± 0.56
8	Carynginia Formation	2063	1.77 ± 0.36
9	Caryngninia Formation	2091	1.77 ± 0.36
10	Irwin River Coal Measures	2628	3.02 ± 0.50
11	High Cliff Sandstone	2794	4.40 ± 0.20
12	Holmwood Shale	2854	1.45 ± 0.15
13	Nangetty Formation	3175	2.75 ± 0.48
14	Wicherina Beds	4239	2.75 ± 0.48
15	Basement	4250	3.20 ± 0.40
16	Basement	5000	3.20 ± 0.40

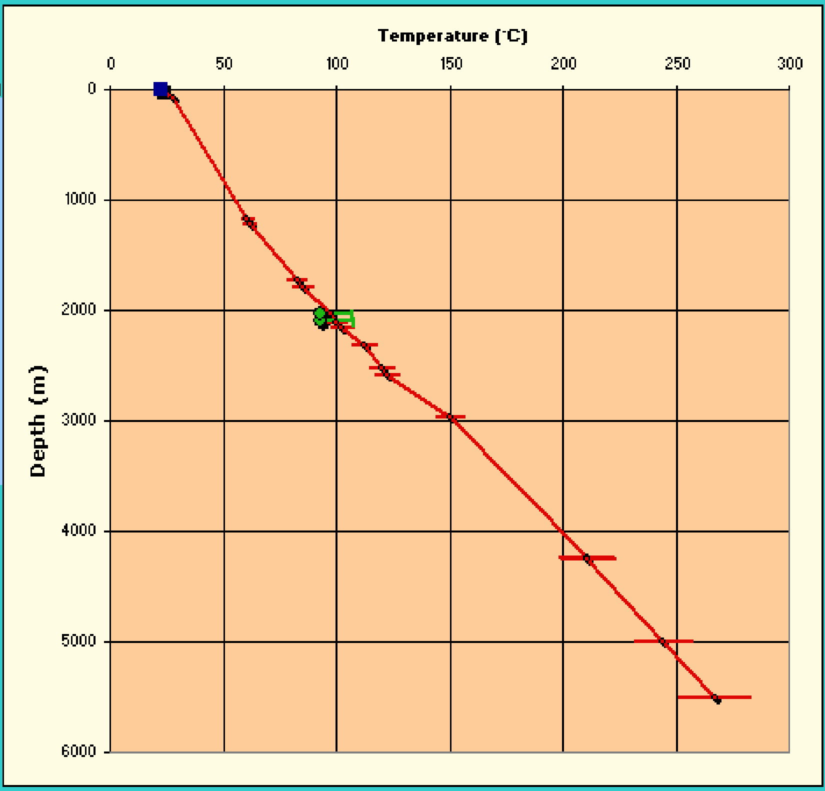


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
2516.7	72.2	0	17.617	BHT, ΔT not recorded
2493	88	0	17.451	BHT, ΔT not recorded
2494	93	0	17.458	BHT, ΔT not recorded

Number of layers	17	Up to 50	Heat flow:	100	± 5.3 mW/m2
"Depth" to ground level	0	"KB height"			
Total Depth (m)	5500	From drilling datum			
Surface temp. (°C)	22.5	Hovea-5			

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		0	1.42 ± 0.14
2	coastal limestone	8	1.42 ± 0.14
3	Yarragadee Formation	82	3.54 ± 0.30
4	Cadda Formation	1182	4.14 ± 0.52
5	Eneabba Formation	1218	2.62 ± 0.44
6	Lesueur Sandstone	1724	3.56 ± 0.23
7	Kockatea Shale	1799	2.09 ± 0.06
8	Dongara Sandstone	2037	2.92 ± 0.56
9	Dongara Sandstone	2105	2.92 ± 0.56
10	Caryngninia Formation	2166	1.77 ± 0.36
11	Irwin River Coal Measu	2324	3.02 ± 0.50
12	High Cliff Sandstone	2521	4.40 ± 0.20
13	Holmwood Shale	2593	1.45 ± 0.15
14	Nangetty Formation	2974	2.75 ± 0.48
15	Wicherina Beds	4237	2.75 ± 0.48
16	Basement	4250	3.20 ± 0.40
17	Basement	5000	3.20 ± 0.40

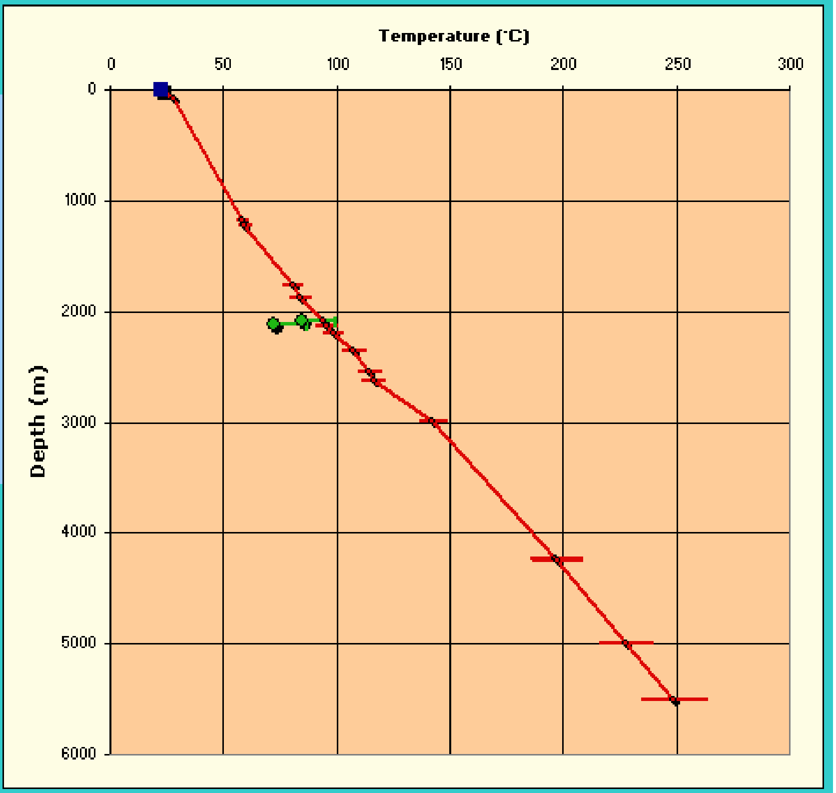


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
2099	92.77	0	14.693	BHT, ΔT not recorded
2099	92.78	0	14.693	BHT, ΔT not recorded
2031.5	92.78	0	14.221	BHT, ΔT not recorded

Number of layers	17	Up to 50	**Heat flow:** 94 ± 5.0 mW/m2
"Depth" to ground level	0	"KB height"	
Total Depth (m)	5500	From drilling datum	
Surface temp. (°C)	22.5	Hovea-6	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		0	1.42 ± 0.14
2	coastal limestone	8	1.42 ± 0.14
3	Yarragadee Formation	82	3.54 ± 0.30
4	Cadda Formation	1182	4.14 ± 0.52
5	Eneabba Formation	1218	2.62 ± 0.44
6	Lesueur Sandstone	1766	3.56 ± 0.23
7	Kockatea Shale	1875	2.09 ± 0.06
8	Dongara Formation	2087	2.92 ± 0.56
9	Dongara Sandstone	2126	2.92 ± 0.56
10	Carynginia Formation	2202	1.77 ± 0.36
11	Irwin River Coal Measu	2357	3.02 ± 0.50
12	High Cliff Sandstone	2550	4.40 ± 0.20
13	Holmwood Shale	2620	1.45 ± 0.15
14	Nangetty Formation	2995	2.75 ± 0.48
15	Wicherina Beds	4237	2.75 ± 0.48
16	Basement	4250	3.20 ± 0.40
17	Basement	5000	3.20 ± 0.40

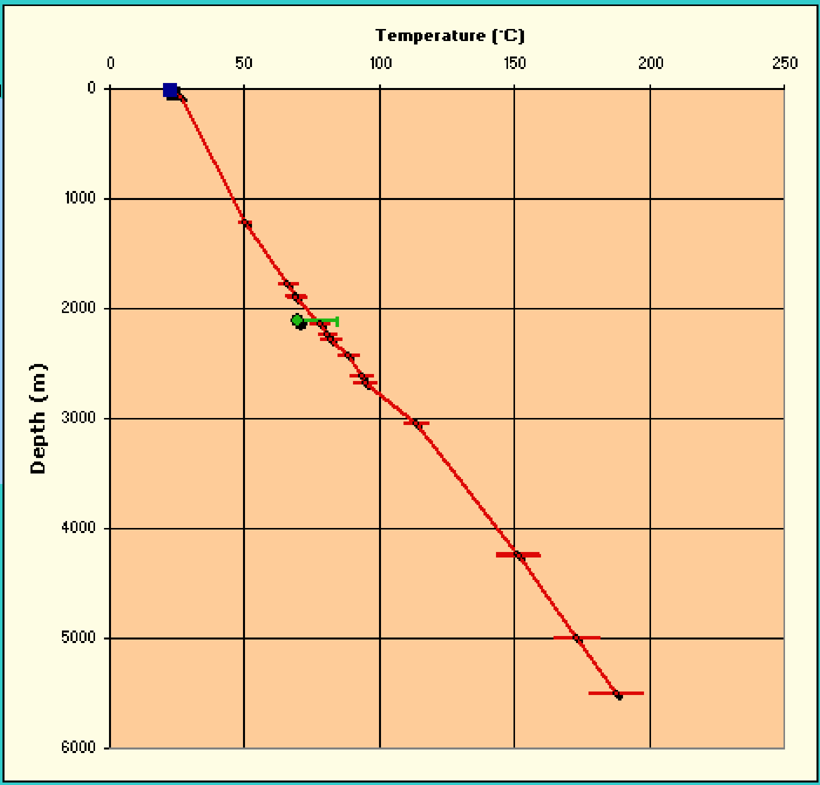


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
2085	85	0	14.595	BHT, ΔT is 9.22 hours
2110	72.2	0	14.77	BHT, ΔT not recorded

Number of layers	17	Up to 50	Heat flow: 72 ± 3.7 mW/m2
"Depth" to ground level	8	"KB height"	
Total Depth (m)	5500	From drilling datum	
Surface temp. (°C)	22.5	Hovea-7	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		8	1.42 ± 0.14
2	coastal Limestone	8	1.42 ± 0.14
3	Yarragadee Formation	82	3.54 ± 0.30
4	Eneabba Formation	1218	2.62 ± 0.44
5	Lesueur Sandstone	1771	3.56 ± 0.23
6	Woodada Formation	1890	2.79 ± 0.12
7	Kockatea Shale	1908	2.09 ± 0.06
8	Dongara Sandstone	2140	2.92 ± 0.56
9	Dongara Sandstone	2245	2.92 ± 0.56
10	Carygnginia Formation	2287	1.77 ± 0.36
11	Irwin River Coal Measu	2435	3.02 ± 0.50
12	High Cliff Sandstone	2620	4.40 ± 0.20
13	Holmwood Shale	2687	1.45 ± 0.15
14	Nangetty Formation	3046	2.75 ± 0.48
15	Wicherina Beds	4238	2.75 ± 0.48
16	Basement	4250	3.20 ± 0.40
17	Basement	5000	3.20 ± 0.40

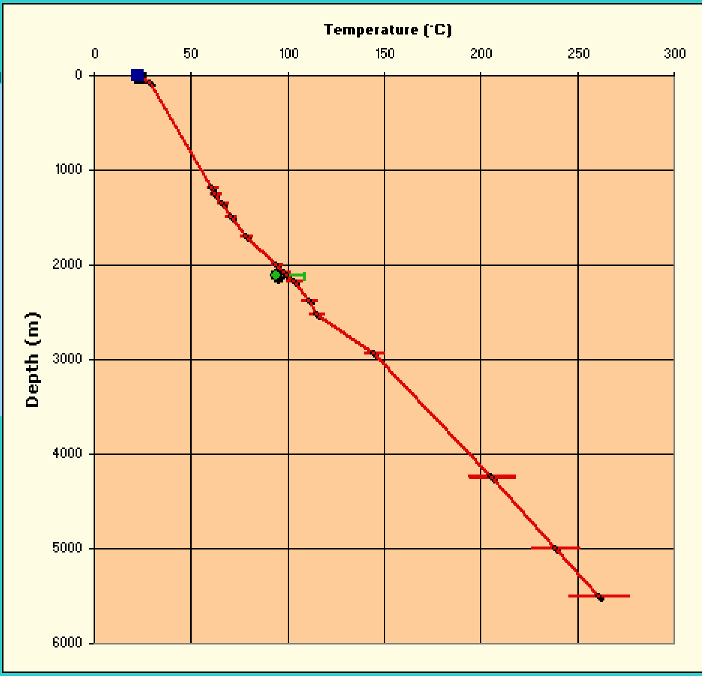


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
2114	70	0	14.798	BHT, ΔT not recorded

Number of layers	17	Up to 50	Heat flow:	99 ± 5.2 mW/m2
"Depth" to ground level	0	"KB height"		
Total Depth (m)	5500	From drilling datum		
Surface temp. (°C)	22.5	Hovea-09		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	Coastal Limestone	0	1.42 ± 0.14
2	Yarragadee Format	85	3.54 ± 0.30
3	Cadda Formation	1190	4.14 ± 0.52
4	Eneabba Formatio	1250	2.62 ± 0.44
5	Lesueur Sandstone	1350	3.56 ± 0.23
6	Woodada Formatic	1485	2.79 ± 0.12
7	Kockatea Shale	1695	2.09 ± 0.06
8	Dongara Sandston	2000	2.92 ± 0.56
9	Carynginia Formati	2085	1.77 ± 0.36
10	Carynginia Formati	2114	1.77 ± 0.36
11	Irwin River Coal M	2175	3.02 ± 0.50
12	High Cliff Sandsto	2380	4.40 ± 0.20
13	Holmwood Shale	2525	1.45 ± 0.15
14	Nangetty Formatio	2930	2.75 ± 0.48
15	Wicherina Beds	4237	2.75 ± 0.48
16	Basement	4250	3.20 ± 0.40
17	Basement	5000	3.20 ± 0.40

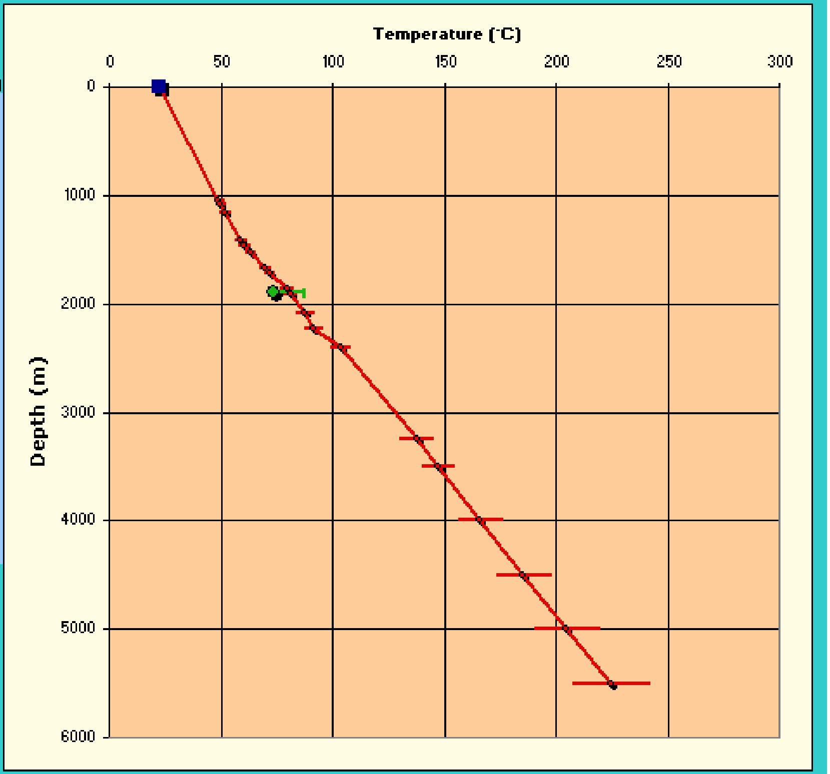


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
2112.5	94	0	14.788	BHT, ΔT is 10.75 hours
2112.5	94	0	14.788	BHT, ΔT is 18.75 hours

Number of layers	21	Up to 50	Heat flow:	95	± 3.9 mW/m2
"Depth" to ground level	4	"KB height"			
Total Depth (m)	5500	From driling datum			
Surface temp. (°C)	22.5	Huntswell-1			

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		4	3.81 ± 0.30
2	Yarragadee Formation	4	3.81 ± 0.30
3	Champion Bay Group	1045	4.14 ± 0.52
4	New Marracarra Limeston	1080	4.14 ± 0.52
5	Cattamarra Coal Measure	1157	3.73 ± 0.20
6	Eneabba Formation	1415	2.62 ± 0.44
7	Woodada Formation	1462	2.79 ± 0.12
8	Kockatea Shale	1531	2.09 ± 0.06
9	Wagina Sandstone	1671	2.92 ± 0.56
10	Carynginia Formation	1720	1.77 ± 0.36
11	Irwin River Coal Measures	1857	3.02 ± 0.50
12	Irwin River Coal Measures	1903	3.02 ± 0.50
13	High Cliff Sandstone	2090	4.40 ± 0.20
14	Holmwood Shale	2230	1.45 ± 0.15
15	Nangetty Formation	2410	2.75 ± 0.48
16	Wicherina Beds	3240	2.75 ± 0.48
17	Basement	3250	3.20 ± 0.40
18	Basement	3500	3.20 ± 0.40
19	Basement	4000	3.20 ± 0.40
20	Basement	4500	3.20 ± 0.40
21	Basement	5000	3.20 ± 0.40

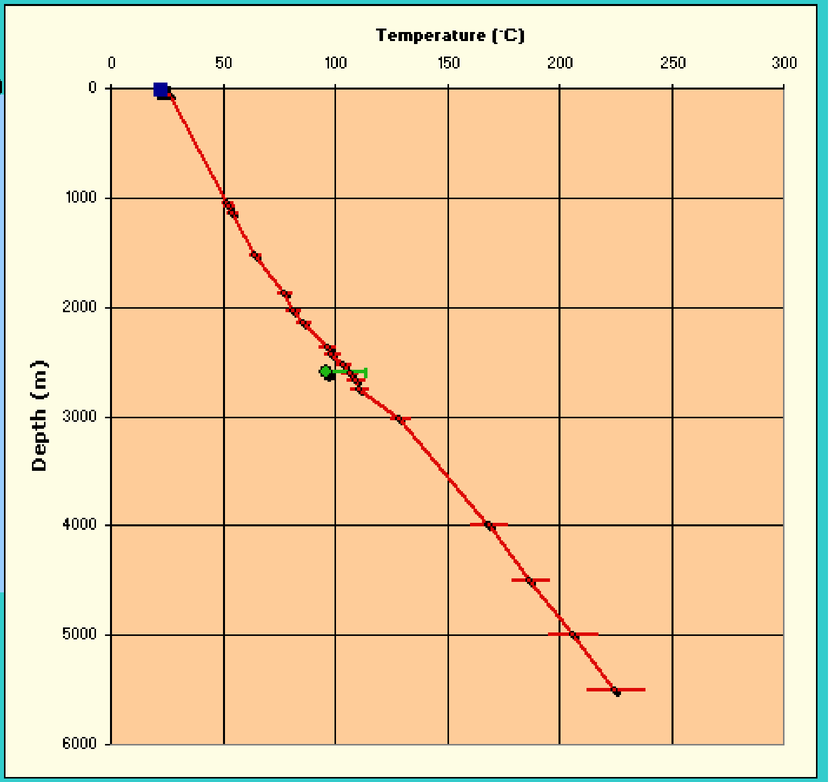


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1888	74	0	13.216	BHT, ΔT is 7 hours

Number of layers	22	Up to 50	Heat flow:	90 ± 3.9 mW/m2
"Depth" to ground level	8	"KB height"		
Total Depth (m)	5500	From drilling datum		
Surface temp. (°C)	22.5	Illigarrie-1		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		8	1.42 ± 0.14
2	Recent	8	1.42 ± 0.14
3	Yarragadee Formation	70	3.54 ± 0.30
4	Cadda Formation	1045	4.14 ± 0.52
5	New Marracarra Limeston	1078	4.14 ± 0.52
6	Colalura Sandstone	1090	4.14 ± 0.52
7	Cattamarra Coal Measure	1144	3.73 ± 0.20
8	Eneabba Formation	1529	2.62 ± 0.44
9	Lesueur Sandstone	1876	3.56 ± 0.23
10	Woodada Formation	2032	2.79 ± 0.12
11	Kockatea Shale	2149	2.09 ± 0.06
12	Dongara Sandstone	2373	2.92 ± 0.56
13	Carynginia Formation	2437	1.77 ± 0.36
14	Irwin River Coal Measures	2528	3.02 ± 0.50
15	Irwin River Coal Measures	2608	3.02 ± 0.50
16	High Cliff Sandstone	2678	4.40 ± 0.20
17	Holmwood Shale	2750	1.45 ± 0.15
18	Nangetty Formation	3024	2.75 ± 0.48
19	Wicherina Beds	3990	2.75 ± 0.48
20	Basement	4000	3.20 ± 0.40
21	Basement	4500	3.20 ± 0.40
22	Basement	5000	3.20 ± 0.40

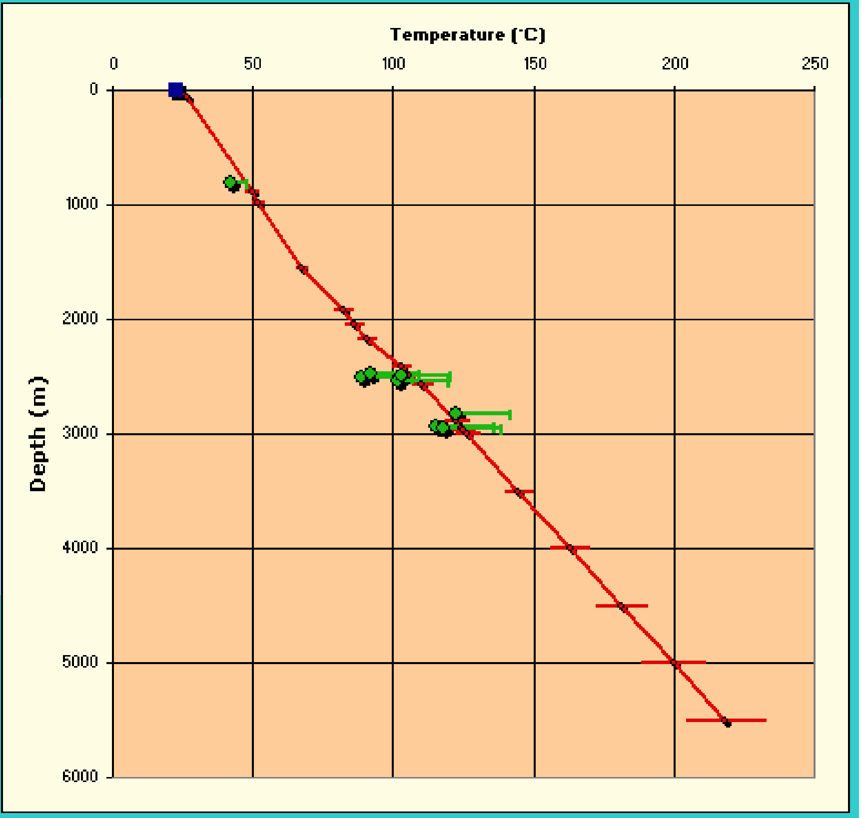


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
2600	96	0	18.2	BHT, ΔT is 17.25 hours
2588.8	96.2	0	18.122	BHT, ΔT is 10.13 hours

Number of layers	21	Up to 50	**Heat flow:**	95	± 3.2 mW/m2
"Depth" to ground level	0	"KB height"			
Total Depth (m)	5500	From drilling datum			
Surface temp. (°C)	22.5	Jingemia-1			

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	coastal limestone	0	1.42 ± 0.14
2	Yarragadee Forma	63	3.54 ± 0.30
3	Cadda Formation	889	4.14 ± 0.52
4	Cattamarra Coal I	987	3.73 ± 0.20
5	Eneabba Formatic	1550	2.62 ± 0.44
6	Lesueur Sandston	1925	3.56 ± 0.23
7	Woodada Formati	2052	2.79 ± 0.12
8	Kockatea Shale	2173	2.09 ± 0.06
9	Dongara Sandstoi	2415	2.92 ± 0.56
10	Carynginia Forma	2489	1.77 ± 0.36
11	Irwin River Coal M	2567	3.02 ± 0.50
12	High Cliff Sandstc	2895	4.40 ± 0.20
13	High Cliff Sandstc	2950	4.40 ± 0.20
14	Holmwood Shale	2951	1.45 ± 0.15
15	Nangetty Formati	2965	2.75 ± 0.48
16	Wicherina Beds	2998	2.75 ± 0.48
17	Basement	3000	3.20 ± 0.40
18	Basement	3500	3.20 ± 0.40
19	Basement	4000	3.20 ± 0.40
20	Basement	4500	3.20 ± 0.40
21	Basement	5000	3.20 ± 0.40

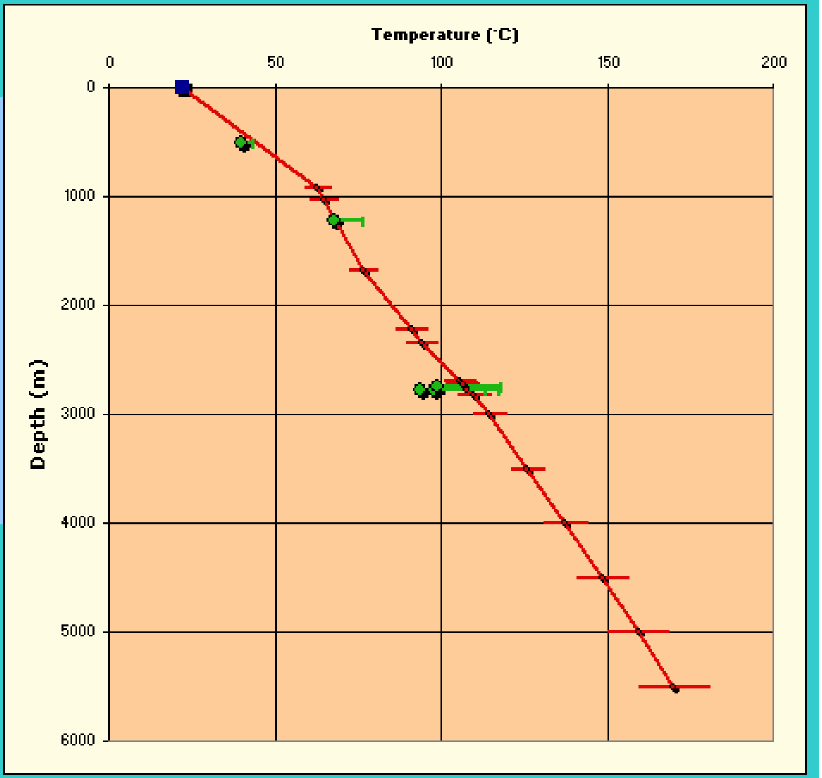


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
806.5	42	0	5.6455	BHT, ΔT not recorded
2509	89	0	17.563	BHT, ΔT not recorded
2477	92	0	17.339	BHT, ΔT not recorded
2535	102	0	17.745	BHT, ΔT not recorded
2492	103	0	17.444	BHT, ΔT not recorded
2933	115.5	0	20.531	BHT, ΔT not recorded
2950	118	0	20.65	BHT, ΔT not recorded
2945	118	0	20.615	BHT, ΔT not recorded
2825	122.2	0	19.775	BHT, ΔT not recorded

Number of layers	19	Up to 50	Heat flow:	62	± 2.4 mW/m2
"Depth" to ground level	0	"KB height"			
Total Depth (m)	5500	From driling datum			
Surface temp. (°C)	22.5	Jingemia-2			

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		0	1.42 ± 0.14
2	coastal limestone	8	1.42 ± 0.14
3	Cadda Formation	914	4.14 ± 0.52
4	Cattamarra Coal Measure	1034	3.73 ± 0.20
5	Eneabba Member	1685	2.62 ± 0.44
6	Woodada Formation	2227	2.79 ± 0.12
7	Kockatea Shale	2350	2.09 ± 0.06
8	Dongara Sandstone	2699	2.92 ± 0.56
9	Carynginia Formation	2715	1.77 ± 0.36
10	Irwin River Coal Measures	2737	3.02 ± 0.50
11	High Cliff Sandstone	2764	4.40 ± 0.20
12	Holmwood Shale	2774	1.45 ± 0.15
13	Nangetty Formation	2826	2.75 ± 0.48
14	Wicherina Beds	2998	2.75 ± 0.48
15	Basement	3000	3.20 ± 0.40
16	Basement	3500	3.20 ± 0.40
17	Basement	4000	3.20 ± 0.40
18	Basement	4500	3.20 ± 0.40
19	Basement	5000	3.20 ± 0.40

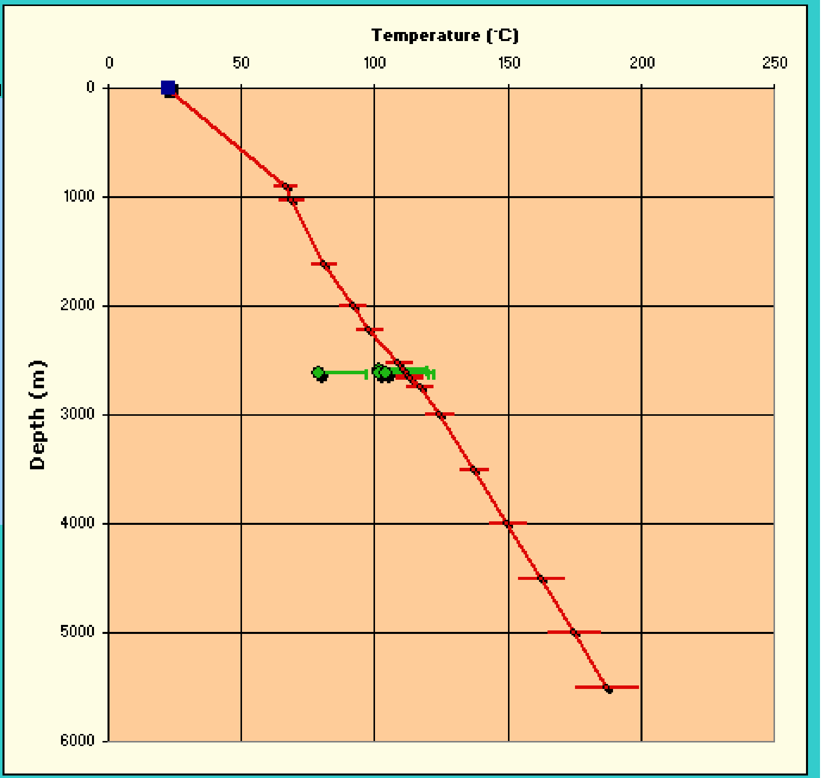


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
503.5	40	0	3.5245	BHT, ΔT not recorded
1222	68	0	8.554	BHT, ΔT not recorded
2778	94	0	19.446	BHT, ΔT not recorded
2778	98	0	19.446	BHT, ΔT not recorded
2743	99	0	19.201	BHT, ΔT not recorded

Number of layers	19	Up to 50	Heat flow:	68 ± 2.5 mW/m2
"Depth" to ground level	0	"KB height"		
Total Depth (m)	5500	From drilling datum		
Surface temp. (°C)	22.5	Jingemia-3		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		0	1.42 ± 0.14
2	coastal limestone	8	1.42 ± 0.14
3	Cadda Formation	907	4.14 ± 0.52
4	Cattamarra Coal Measure	1024	3.73 ± 0.20
5	Eneabba Member	1625	2.62 ± 0.44
6	Woodada Formation	2007	2.79 ± 0.12
7	Kockatea Shale	2230	2.09 ± 0.06
8	Dongara Sandstone	2528	2.92 ± 0.56
9	Carynginia Formation	2587	1.77 ± 0.36
10	Irwin River Coal Measures	2618	3.02 ± 0.50
11	High Cliff Sandstone	2657	4.40 ± 0.20
12	Holmwood Shale	2671	1.45 ± 0.15
13	Nangetty Formation	2747	2.75 ± 0.48
14	Wicherina Beds	2997	2.75 ± 0.48
15	Basement	3000	3.20 ± 0.40
16	Basement	3500	3.20 ± 0.40
17	Basement	4000	3.20 ± 0.40
18	Basement	4500	3.20 ± 0.40
19	Basement	5000	3.20 ± 0.40

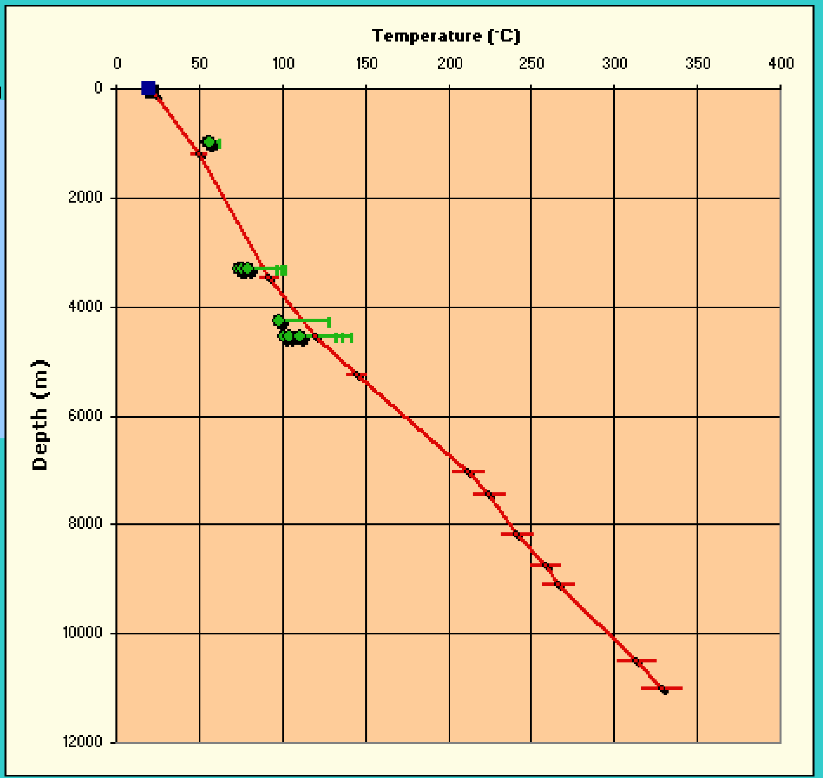


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
2615	78.9	0	18.305	BHT, ΔT not recorded
2587.6	102	0	18.113	BHT, ΔT not recorded
2623.5	102	0	18.365	BHT, ΔT not recorded
2615	104	0	18.305	BHT, ΔT not recorded

Number of layers	15	Up to 50	Heat flow:	61 ± 2.0 mW/m2
"Depth" to ground level	5	"KB height"		
Total Depth (m)	11000	From drilling datum		
Surface temp. (˚C)	20.25	Lake Preston-1		

	Formation Name	Top (m)	Cond @ 25˚C (W/mK)
1		5	1.42 ± 0.14
2	Recent	5	1.42 ± 0.14
3	Quaternary	24	1.42 ± 0.14
4	Leederville Formation	42	2.56 ± 0.18
5	Eneabba Formation	112	2.62 ± 0.44
6	Lesueur Sandstone	1219	3.56 ± 0.23
7	Sabina Sandstone	3474	2.79 ± 0.12
8	Willespie Formation	4565	1.96 ± 0.11
9	Willespie Formation	5255	1.96 ± 0.11
10	Redgate Coal Measures	7035	2.87 ± 0.09
11	Ashbrook Sandstone	7448	3.98 ± 0.24
12	Rosabrook Coal Measure	8190	2.87 ± 0.09
13	Woodynook Sandstone	8751	4.15 ± 0.28
14	Mosswood Formation	9094	2.75 ± 0.42
15	Basement	10500	3.20 ± 0.40

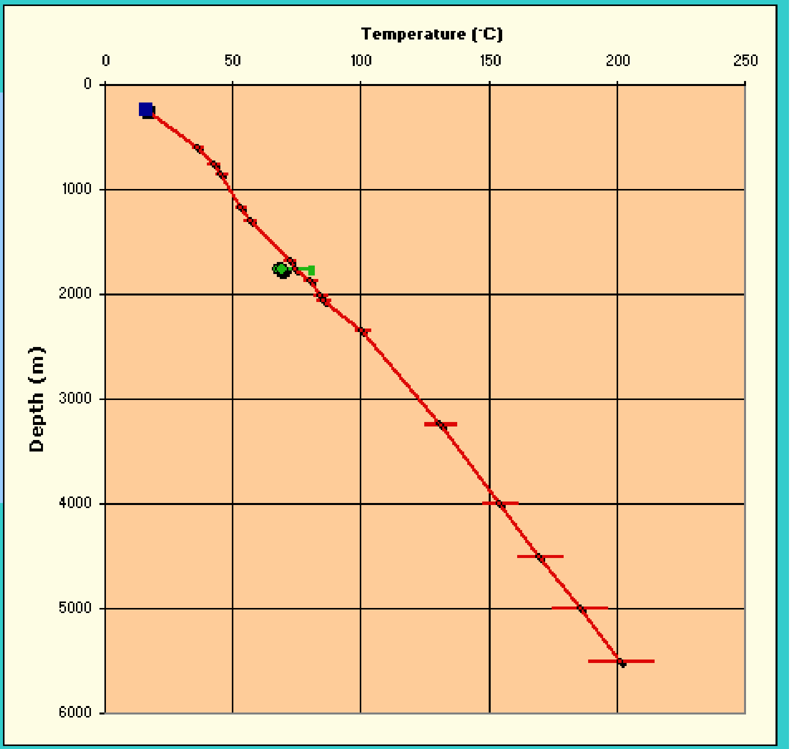


Downhole temperature data (˚C):

Depth (m)	Value	-uncert	+uncert	Comment:
994.26	55.56	0	6.9598	BHT, ΔT not recorded
993.34	56.11	0	6.9534	BHT, ΔT not recorded
3311.96	73.89	0	23.184	BHT, ΔT not recorded
3308.91	76.67	0	23.162	BHT, ΔT not recorded
3313.18	79.44	0	23.192	BHT, ΔT not recorded
3312.26	79.44	0	23.186	BHT, ΔT not recorded
4250.13	98.33	0	29.751	BHT, ΔT not recorded
4567.12	101.11	0	31.97	BHT, ΔT not recorded
4561.03	104.44	0	31.927	BHT, ΔT not recorded
4563.16	110.56	0	31.942	BHT, ΔT not recorded

Number of layers	19	Up to 50	Heat flow:	79 ± 3.2 mW/m2
"Depth" to ground level	234	"KB height"		
Total Depth (m)	5500	From drilling datum		
Surface temp. (°C)	16	Livet-1		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		234	1.42 ± 0.14
2	Quaternary/Tertiary	234	1.42 ± 0.14
3	Undifferentiated Upper Cretacou	600	2.22 ± 0.16
4	Warnbro Group	767	2.22 ± 0.16
5	Lesueur Sandstone	850	3.56 ± 0.23
6	Woodada Formation	1175	2.79 ± 0.12
7	Kockatea Shale	1300	2.09 ± 0.06
8	Dongara Sandstone	1685	2.92 ± 0.56
9	Dongara Sandstone	1760	2.92 ± 0.56
10	Carynginia Formation	1768	1.77 ± 0.36
11	Irwin River Coal Measures	1880	3.02 ± 0.50
12	High Cliff Sandstone	2020	4.40 ± 0.20
13	Holmwood Shale	2071	1.45 ± 0.15
14	Nangetty Formation	2342	2.75 ± 0.48
15	Wicherina Beds	3241	2.75 ± 0.48
16	Basement	3250	3.20 ± 0.40
17	Basement	4000	3.20 ± 0.40
18	Basement	4500	3.20 ± 0.40
19	Basement	5000	3.20 ± 0.40

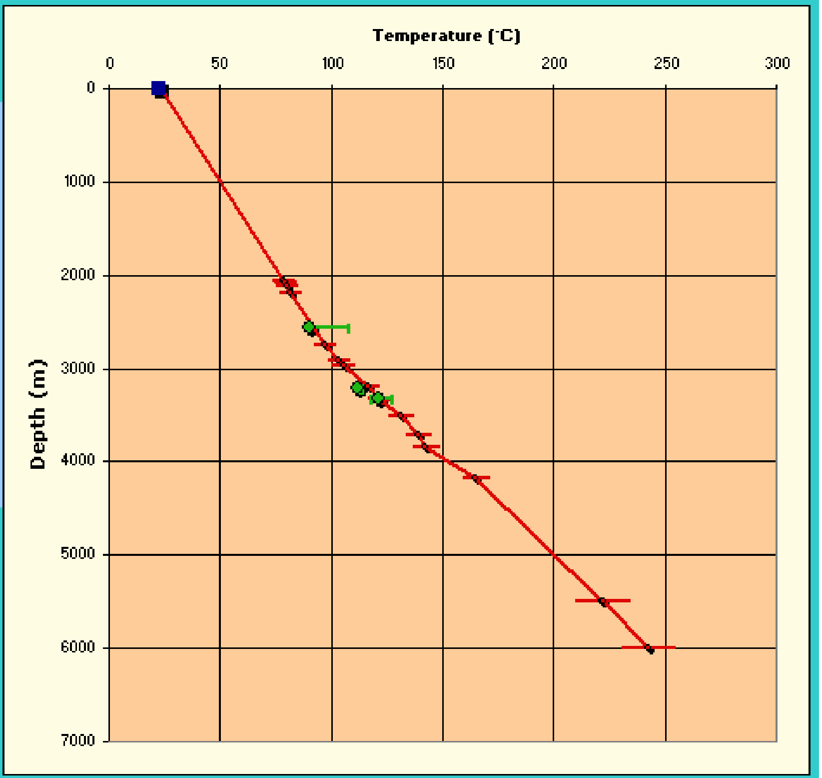


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1760	68	0	12.32	BHT, ΔT is 10.25 hours
1757	69	0	12.299	BHT, ΔT is 10.25 hours

Number of layers	18	Up to 50	Heat flow: 90 ± 4.8 mW/m2
"Depth" to ground level	0	"KB height"	
Total Depth (m)	6000	From drilling datum	
Surface temp. (°C)	22.75	Lockyer-1	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		0	1.42 ± 0.14
2	Yarragadee Formation	8	3.54 ± 0.30
3	Cadda Formation	2053	4.14 ± 0.52
4	Newmarracarra Limestone	2081	4.14 ± 0.52
5	Colalura Limestone	2117	4.14 ± 0.52
6	Cattamarra coal Measure	2182	3.73 ± 0.20
7	Eneabba Formation	2747	2.62 ± 0.44
8	Woodada Formation	2909	2.79 ± 0.12
9	Kockatea Shale	2963	2.09 ± 0.06
10	Wagina Sandstone	3185	2.92 ± 0.56
11	Wagina Sandstone	3327	2.92 ± 0.56
12	Carynginia Formation	3350	1.77 ± 0.36
13	Irwin River Coal Measure:	3513	3.02 ± 0.50
14	High Cliff Sandstone	3716	4.40 ± 0.20
15	Holmwood Shale	3850	1.45 ± 0.15
16	Nangetty Formation	4183	2.75 ± 0.48
17	Wicherina Beds	5487	2.75 ± 0.48
18	Basement	5500	3.20 ± 0.40

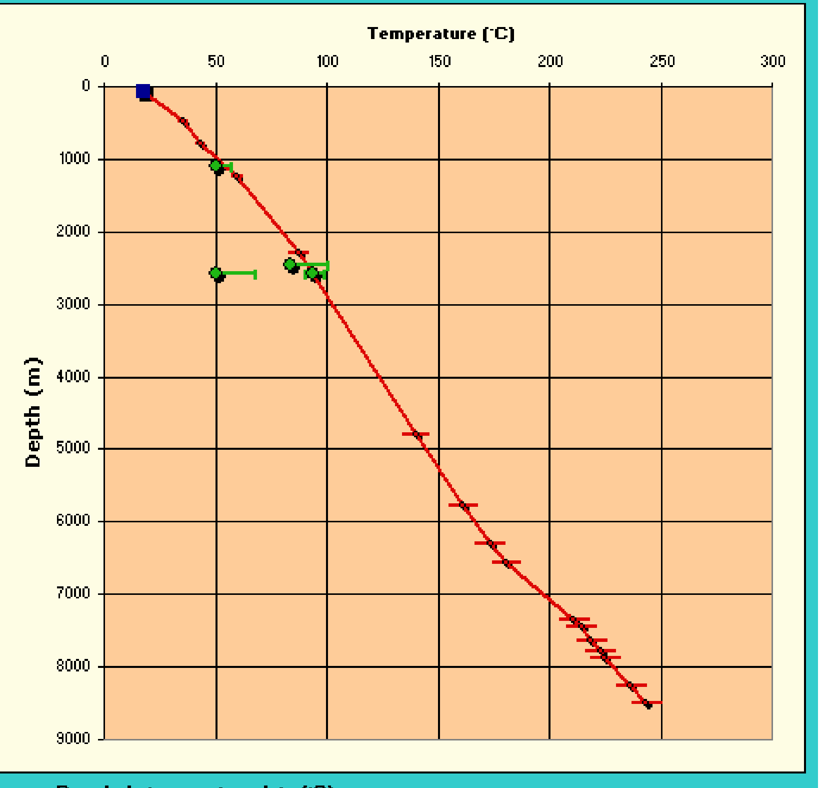


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
3221.07	112.2	0	2	DST; 'Open hole test. No fluid recovery.
3221	111.6	0	2	DST; 'Open hole test. Recovered 164bbl mud and 96bbl water when reverse circulated, no hydrocarbon accumulations indicated.
3326.5	121.5	3	6	Horner corrected, averaged depths
2560.5	90	0	17.924	BHT, ΔT is 29.25 hours

Number of layers	17	Up to 50	Heat flow:	62	± 1.9 mW/m2
"Depth" to ground level	77	"KB height"			
Total Depth (m)	8500	From drilling datum			
Surface temp. (°C)	18	Marri-1			

	Formation Name	Top (m)	Cond @ 25°C (W/mK)	
1		77	1.42	± 0.14
2	Tertiary	77	1.42	± 0.14
3	Leederville Formation	474	2.56	± 0.18
4	South Perth Shale	792	1.71	± 0.14
5	Permelia Group	1236	2.58	± 0.33
6	Parmelia Group	2287	2.58	± 0.33
7	Yarragadee Formation	2288	3.54	± 0.30
8	Cattamarra Coal Measure	4788	3.73	± 0.20
9	Lesueur Sandstone	5788	3.56	± 0.23
10	Sabina Sandstone	6312	2.79	± 0.12
11	Willespie Formation	6562	1.96	± 0.11
12	Redgate Coal Measures	7345	2.87	± 0.09
13	Ashbrook Sandstone	7453	3.98	± 0.24
14	Rosabrook Coal Measure	7647	2.87	± 0.09
15	Woodynook Sandstone	7793	4.15	± 0.28
16	Mosswood Formation	7882	2.75	± 0.42
17	Basement	8250	3.20	± 0.40

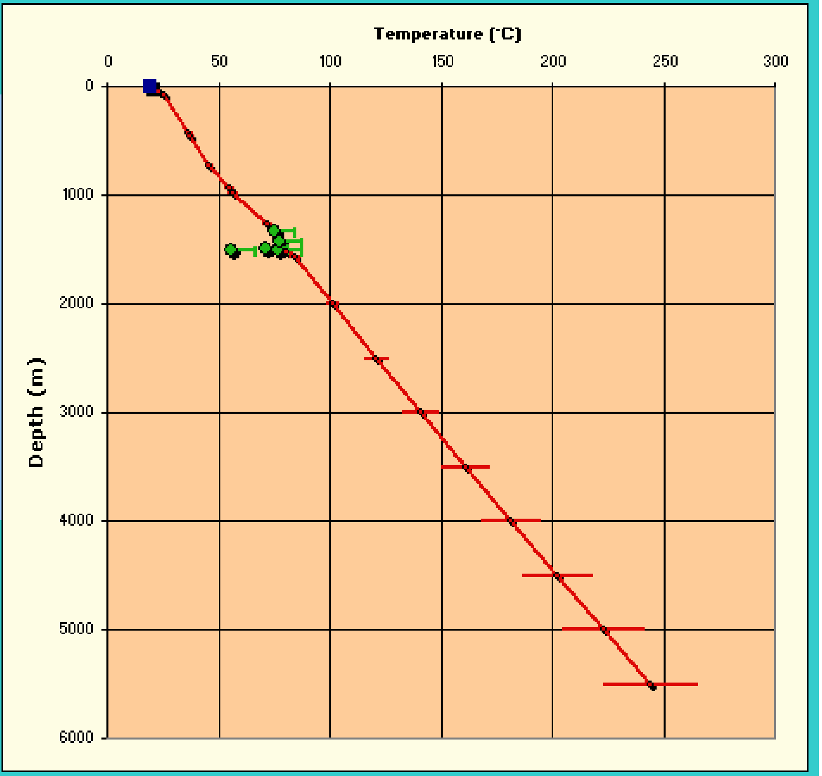


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
2585.8	93.59	3	6	horner corrected, depths averaged
2454	83.6	0	17.178	BHT, ΔT is 4.5 hours
1096.5	50	0	7.6755	BHT, ΔT is 6.33 hours
2587.5	50	0	18.113	BHT, ΔT is 6.33 hours

Number of layers	19	Up to 50	Heat flow:	109 ± 3.7 mW/m2
"Depth" to ground level	0	"KB height"		
Total Depth (m)	5500	From drilling datum		
Surface temp. (°C)	19.6	Mentelle-1		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)	
1		0	1.42	± 0.14
2	tertiary to recent	43	1.42	± 0.14
3	Yarragadee Formation	80	3.54	± 0.30
4	Cadda Formation	427	4.14	± 0.52
5	Cattamarra Coal Measure	461	3.73	± 0.20
6	Eneabba Formation	736	2.62	± 0.44
7	Woodada Formation	940	2.79	± 0.12
8	Kockatea Shale	982	2.09	± 0.06
9	Irwin River Coal Measures	1262	3.02	± 0.50
10	High Cliff Sandstone	1391	4.40	± 0.20
11	Holmwood Shale	1517	1.45	± 0.15
12	Basement	1567	3.20	± 0.40
13	Basement	2000	3.20	± 0.40
14	Basement	2500	3.20	± 0.40
15	Basement	3000	3.20	± 0.40
16	Basement	3500	3.20	± 0.40
17	Basement	4000	3.20	± 0.40
18	Basement	4500	3.20	± 0.40
19	Basement	5000	3.20	± 0.40

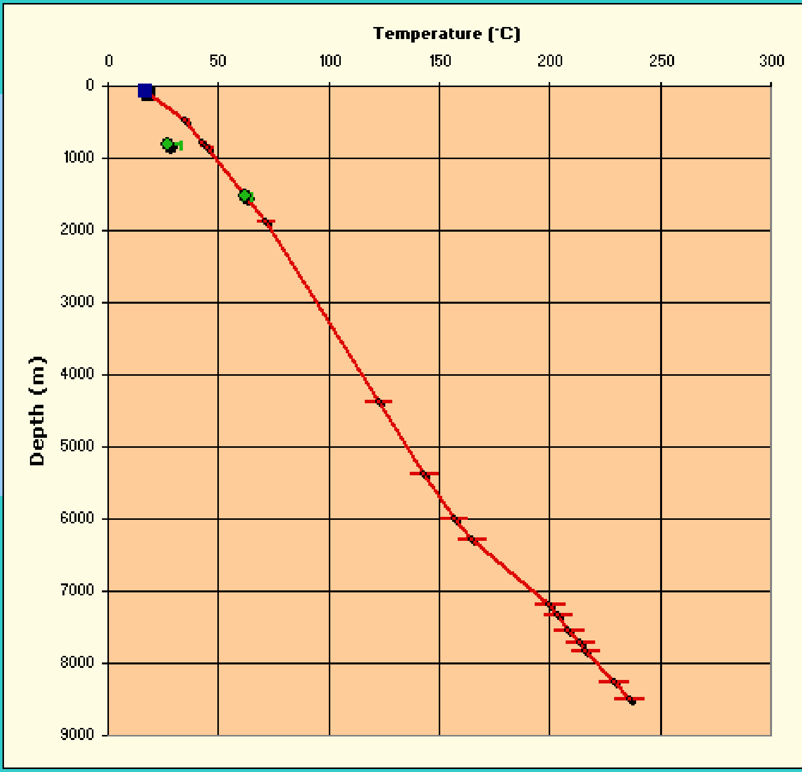


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1509	56	0	10.563	BHT, ΔT not recorded
1490	71.1	0	10.43	BHT, ΔT not recorded
1329.3	75	0	9.3051	BHT, ΔT not recorded
1510	76.7	0	10.57	BHT, ΔT not recorded
1433.5	77.8	0	10.035	BHT, ΔT not recorded

Number of layers	18	Up to 50	Heat flow:	62 ± 1.8 mW/m2
"Depth" to ground level	73	"KB height"		
Total Depth (m)	8500	From drilling datum		
Surface temp. (°C)	17.3	Minder Reef-1		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		73	1.42 ± 0.14
2	Tertiary	73	1.42 ± 0.14
3	Leederville Formation	475	2.56 ± 0.18
4	South Perth Shale	789	1.71 ± 0.14
5	Gage Sandstone	828	1.93 ± 0.04
6	Parmelia Group	864	2.58 ± 0.33
7	Parmelia Group	1530	2.58 ± 0.33
8	Yarragadee Formation	1891	3.54 ± 0.30
9	Cattamarra Coal Measure	4391	3.73 ± 0.20
10	Lesueur Sandstone	5391	3.56 ± 0.23
11	Sabina Sandstone	6000	2.79 ± 0.12
12	Willespie Formation	6290	1.96 ± 0.11
13	Redgate Coal Measures	7200	2.87 ± 0.09
14	Ashbrook Sandstone	7325	3.98 ± 0.24
15	Rosabrook Coal Measure	7550	2.87 ± 0.09
16	Woodynook Sandstone	7720	4.15 ± 0.28
17	Mosswood Formation	7824	2.75 ± 0.42
18	Basement	8250	3.20 ± 0.40

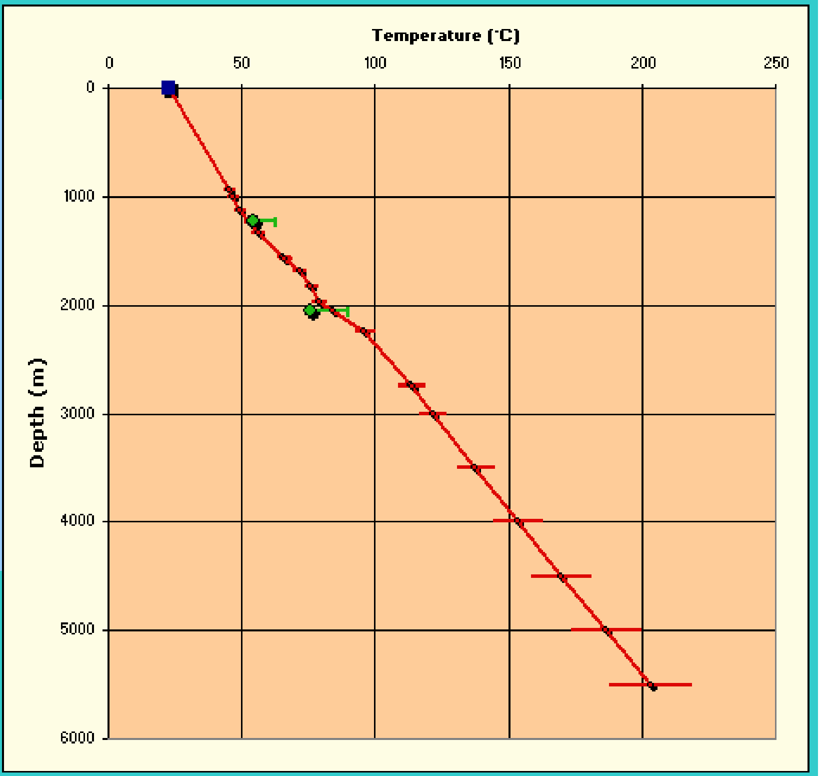


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1521	62.08	1	3	Horner corrected. Averaged depths
808	27.5	0	5.656	BHT, ΔT is 3.75 hours

Number of layers	21	Up to 50	Heat flow: 84 ± 2.9 mW/m2
"Depth" to ground level	4	"KB height"	
Total Depth (m)	5500	From drilling datum	
Surface temp. (°C)	22.5	Mt Horner-02	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		4	3.54 ± 0.30
2	Yarragadee Formation	4	3.54 ± 0.30
3	Cadda Formation	935	4.14 ± 0.52
4	Cattamarra Coal Measure	1005	3.73 ± 0.20
5	Eneabba Formation	1125	2.62 ± 0.44
6	Woodada Formation	1244	2.79 ± 0.12
7	Kockatea Shale	1330	2.09 ± 0.06
8	Dongara Sandstone	1554	2.92 ± 0.56
9	Carynginia Formation	1576	1.77 ± 0.36
10	Irwin River Coal Measures	1682	3.02 ± 0.50
11	High Cliff Sandstone	1826	4.40 ± 0.20
12	Holmwood Shale	1967	1.45 ± 0.15
13	Holmwood Shale	2056	1.45 ± 0.15
14	Nangetty Formation	2247	2.75 ± 0.48
15	Wicherina Beds	2745	2.75 ± 0.48
16	Basement	2750	3.20 ± 0.40
17	Basement	3000	3.20 ± 0.40
18	Basement	3500	3.20 ± 0.40
19	Basement	4000	3.20 ± 0.40
20	Basement	4500	3.20 ± 0.40
21	Basement	5000	3.20 ± 0.40

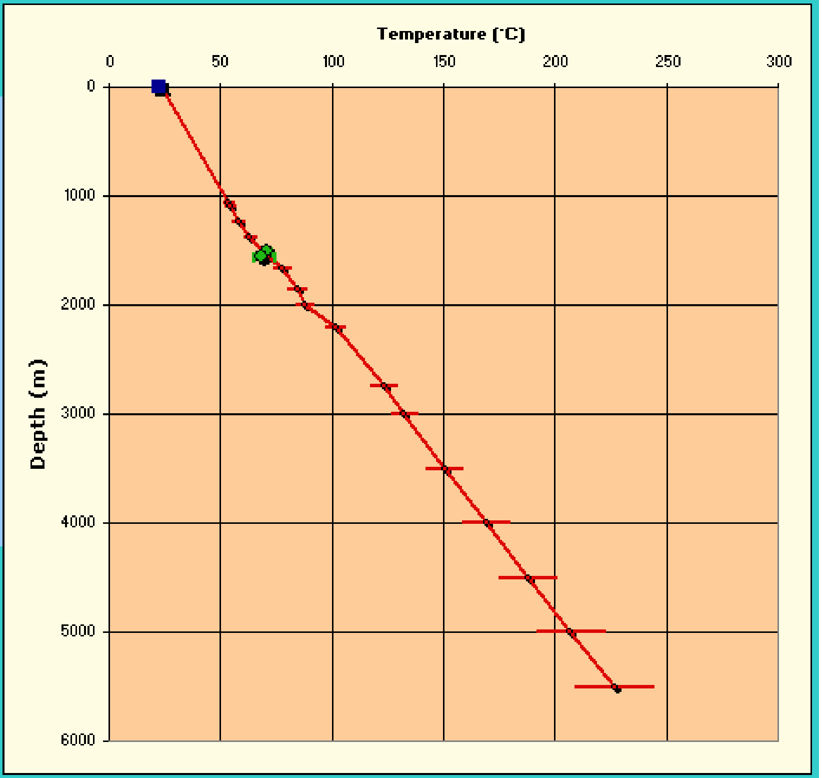


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1223.77	54.44	0	8.5664	BHT, ΔT not recorded
2054.05	75.55	0	14.378	BHT, ΔT not recorded

Number of layers	20	Up to 50	**Heat flow:**	94 ± 3.4 mW/m2
"Depth" to ground level	0	"KB height"		
Total Depth (m)	5500	From drilling datum		
Surface temp. (°C)	22.5	Mt Horner-03		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		0	1.42 ± 0.14
2	Quaternary	3	1.42 ± 0.14
3	Yarragadee Formation	40	3.54 ± 0.30
4	Cadda Formation	1071	4.14 ± 0.52
5	Cattamarra Coal Measure	1102	3.73 ± 0.20
6	Eneabba Formation	1241	2.62 ± 0.44
7	Kockatea Shale	1380	2.09 ± 0.06
8	Carynginia Formation	1552	1.77 ± 0.36
9	Carynginia Formation	1558	1.77 ± 0.36
10	Irwin River Coal Measures	1660	3.02 ± 0.50
11	High Cliff Sandstone	1856	4.40 ± 0.20
12	Holmwood Shale	2000	1.45 ± 0.15
13	Nangetty Formation	2200	2.75 ± 0.48
14	Wicherina Beds	2745	2.75 ± 0.48
15	Basement	2750	3.20 ± 0.40
16	Basement	3000	3.20 ± 0.40
17	Basement	3500	3.20 ± 0.40
18	Basement	4000	3.20 ± 0.40
19	Basement	4500	3.20 ± 0.40
20	Basement	5000	3.20 ± 0.40

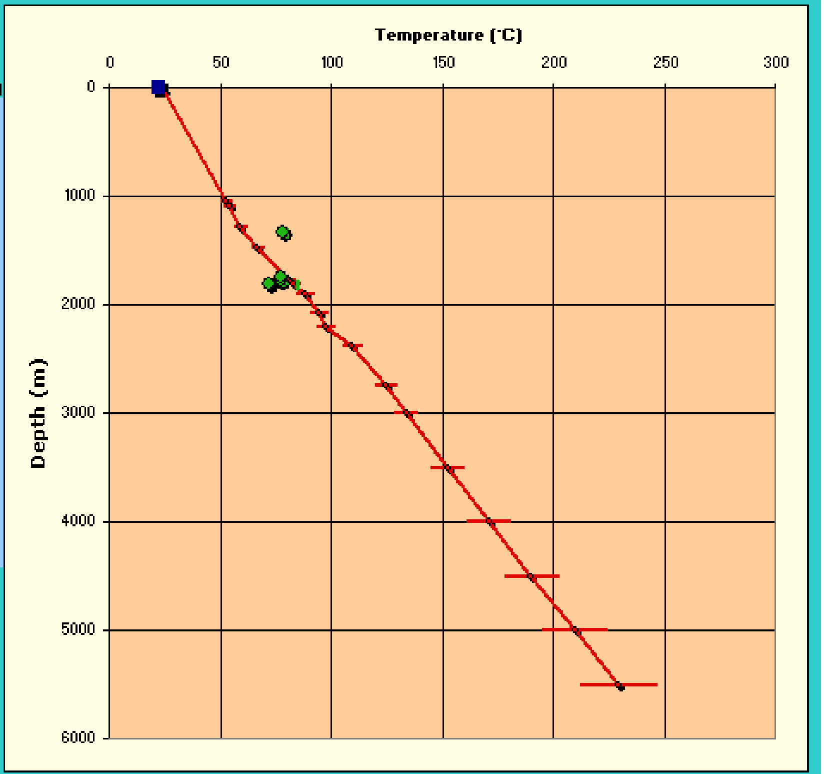


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1515	71.1	0	2	DST; 'Cased hole test.
1559.25	68.49	3	6	horner corrected, averaged depths, two data points

Number of layers	21	Up to 50	Heat flow: 95 ± 3.2 mW/m2
"Depth" to ground level	0	"KB height"	
Total Depth (m)	5500	From drilling datum	
Surface temp. (°C)	22.5	Mt Horner-04	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		0	1.42 ± 0.14
2	Quaternary	4	1.42 ± 0.14
3	Yarragadee Formation	38	3.54 ± 0.30
4	Cadda Formation	1042	4.14 ± 0.52
5	Cattamarra Coal Measure	1090	3.73 ± 0.20
6	Eneabba Formation	1280	2.62 ± 0.44
7	Kockatea Shale	1475	2.09 ± 0.06
8	Dongara Sandstone	1770	2.92 ± 0.56
9	Carynginia Formation	1795	1.77 ± 0.36
10	Carynginia Formation	1816	1.77 ± 0.36
11	Irwin River Coal Measures	1900	3.02 ± 0.50
12	High Cliff Sandstone	2075	4.40 ± 0.20
13	Holmwood Shale	2200	1.45 ± 0.15
14	Nangetty Formation	2375	2.75 ± 0.48
15	Wicherina Beds	2745	2.75 ± 0.48
16	Basement	2750	3.20 ± 0.40
17	Basement	3000	3.20 ± 0.40
18	Basement	3500	3.20 ± 0.40
19	Basement	4000	3.20 ± 0.40
20	Basement	4500	3.20 ± 0.40
21	Basement	5000	3.20 ± 0.40

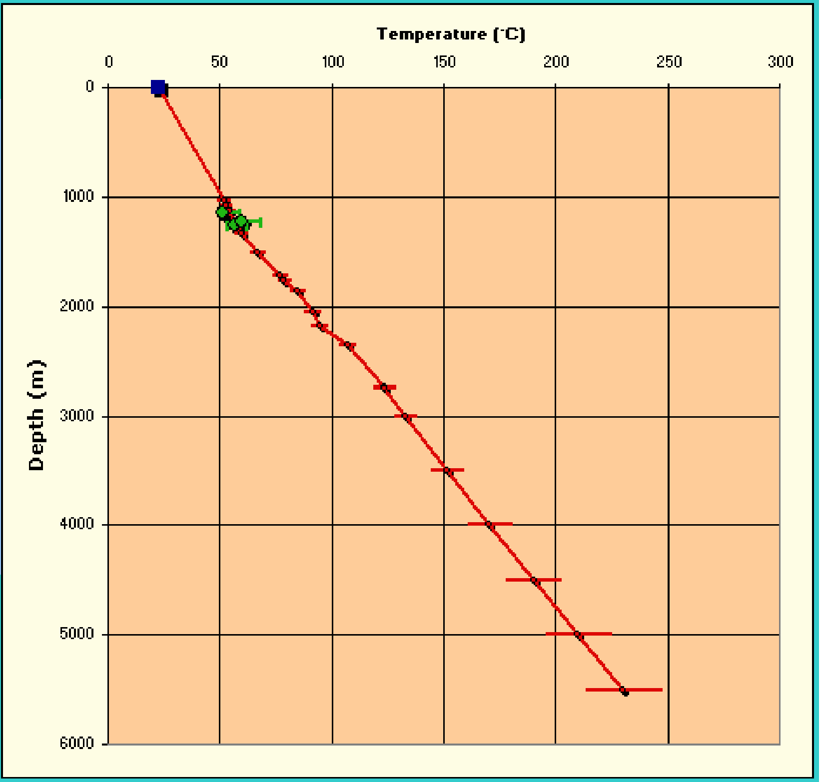


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1772.5	76.6	0	2	DST; 'Cased hole test.
1772.5	77.2	0	2	DST; 'Cased hole test.
1746	77.2	0	2	DST; 'Cased hole test.
1326	78.3	0	2	DST; 'Cased hole test.
1815.1	72.22	0	12.706	BHT, ΔT not recorded

Number of layers	21	Up to 50	Heat flow:	97 ± 3.4 mW/m2
"Depth" to ground level	0	"KB height"		
Total Depth (m)	5500	From drilling datum		
Surface temp. (°C)	22.5	Mt Horner-04A		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	Yarragadee Formation	0	3.54 ± 0.30
2	Kojarena Sandstone	1038	4.14 ± 0.52
3	Newmarracarra Limestone	1080	4.14 ± 0.52
4	Colalura Sandstone	1085	4.14 ± 0.52
5	Cattamarra Coal Measure	1133	3.73 ± 0.20
6	Cattamarra Coal Measure	1265	3.73 ± 0.20
7	Eneabba Formation	1330	2.62 ± 0.44
8	Kockatea Shale	1510	2.09 ± 0.06
9	Dongara Sandstone	1715	2.92 ± 0.56
10	Carynginia Formation	1765	1.77 ± 0.36
11	Irwin River Coal Measures	1865	3.02 ± 0.50
12	High Cliff Sandstone	2050	4.40 ± 0.20
13	Holmwood Shale	2175	1.45 ± 0.15
14	Nangetty Formation	2350	2.75 ± 0.48
15	Wicherina Beds	2745	2.75 ± 0.48
16	Basement	2750	3.20 ± 0.40
17	Basement	3000	3.20 ± 0.40
18	Basement	3500	3.20 ± 0.40
19	Basement	4000	3.20 ± 0.40
20	Basement	4500	3.20 ± 0.40
21	Basement	5000	3.20 ± 0.40

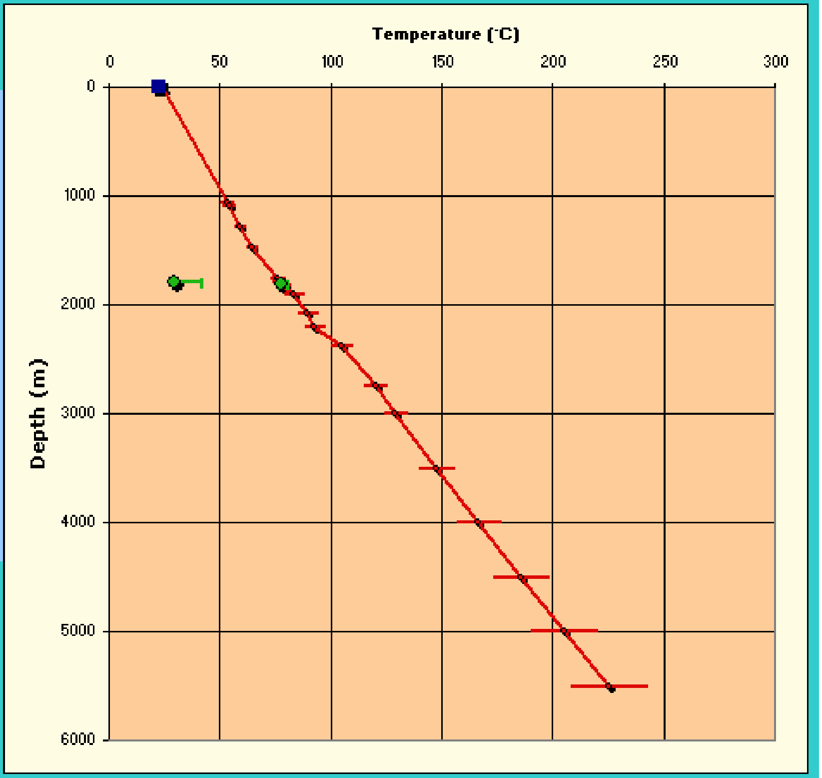


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1150	51.11	0	8.05	BHT, ΔT is 6.37 hours
1250.25	56.55	3	6	horner corrected, depths averaged
1224	60	0	8.568	BHT, ΔT is 310.5 hours

Number of layers	21	Up to 50	**Heat flow:**	**96 ± 3.4 mW/m2**
"Depth" to ground level	0	"KB height"		
Total Depth (m)	5500	From drilling datum		
Surface temp. (°C)	22.5	**Mt Horner-05**		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		0	1.42 ± 0.14
2	Quaternary	3	1.42 ± 0.14
3	Yarragadee Formation	30	3.54 ± 0.30
4	Cadda Formation	1057	4.14 ± 0.52
5	Cattamarra Coal Measure	1088	3.73 ± 0.20
6	Eneabba Formation	1278	3.84 ± 0.20
7	Kockatea Shale	1473	2.62 ± 0.44
8	Dongara Sandstone	1767	2.92 ± 0.56
9	Carynginia Formation	1795	1.77 ± 0.36
10	Carynginia Formation	1819	1.77 ± 0.36
11	Irwin River Coal Measures	1900	3.02 ± 0.50
12	High Cliff Sandstone	2075	4.40 ± 0.20
13	Holmwood Shale	2200	1.45 ± 0.15
14	Nangetty Formation	2375	2.75 ± 0.48
15	Wicherina Beds	2746	2.75 ± 0.48
16	Basement	2750	3.20 ± 0.40
17	Basement	3000	3.20 ± 0.40
18	Basement	3500	3.20 ± 0.40
19	Basement	4000	3.20 ± 0.40
20	Basement	4500	3.20 ± 0.40
21	Basement	5000	3.20 ± 0.40

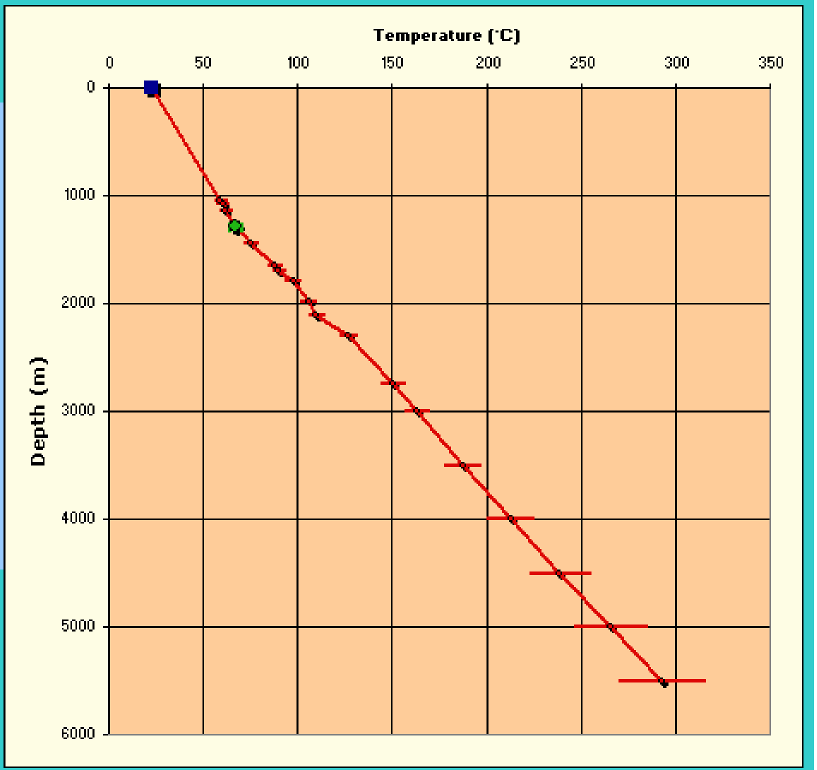


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1816	78.09	1	3	horner corrected, depths averaged
1796	29.44	0	12.572	BHT, ΔT not recorded

Number of layers	21	Up to 50	**Heat flow:** 120 ± 4.3 mW/m2
"Depth" to ground level	0	"KB height"	
Total Depth (m)	5500	From drilling datum	
Surface temp. (°C)	22.5	**Mt Horner-5A**	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	Yarragadee Formation	0	3.54 ± 0.30
2	Kojarena Sandstone	1042	4.14 ± 0.52
3	Newmarracarra Sandstone	1084	4.14 ± 0.52
4	Colalura Sandstone	1087	4.14 ± 0.52
5	Cattamarra Coal Measure	1137	3.73 ± 0.20
6	Cattamarra Coal Measure	1280	3.73 ± 0.20
7	Eneabba Formation	1293	2.62 ± 0.44
8	Kockatea Shale	1450	2.09 ± 0.06
9	Dongara Sandstone	1650	2.92 ± 0.56
10	Carynginia Formation	1700	1.77 ± 0.36
11	Irwin River Coal Measures	1800	3.02 ± 0.50
12	High Cliff Sandstone	1980	4.40 ± 0.20
13	Holmwood Shale	2105	1.45 ± 0.15
14	Nangetty Formation	2295	2.75 ± 0.48
15	Vicherina Beds	2745	2.75 ± 0.48
16	Basement	2750	3.20 ± 0.40
17	Basement	3000	3.20 ± 0.40
18	Basement	3500	3.20 ± 0.40
19	Basement	4000	3.20 ± 0.40
20	Basement	4500	3.20 ± 0.40
21	Basement	5000	3.20 ± 0.40

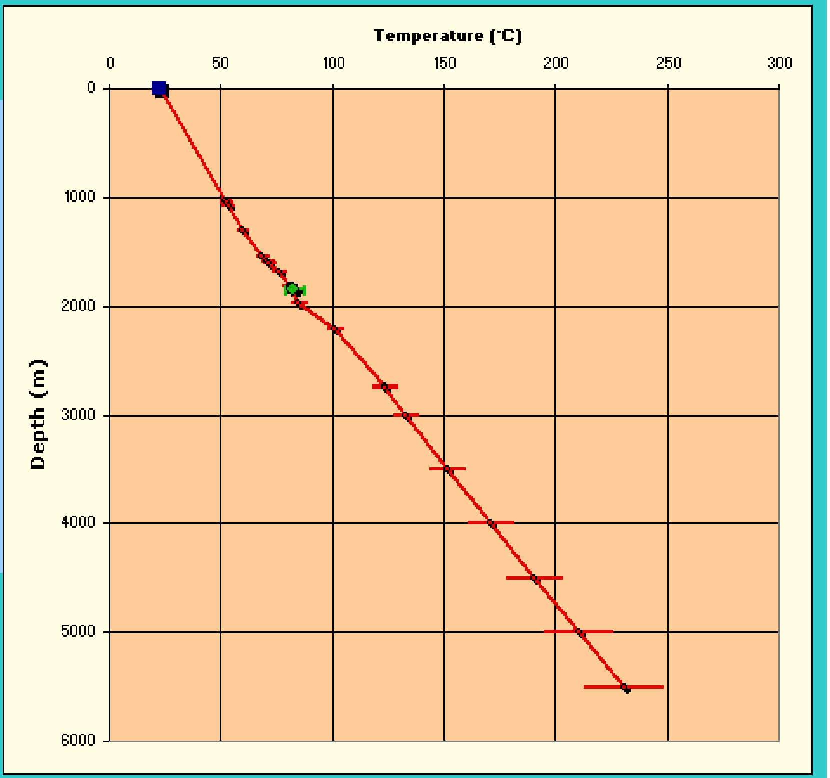


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1278.3	66.74	2	4	horner corrected, depths averaged

Number of layers	21	Up to 50	**Heat flow:** 97 ± 3.6 mW/m2
"Depth" to ground level	0	"KB height"	
Total Depth (m)	5500	From drilling datum	
Surface temp. (°C)	22.5	**Mt Horner-06**	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		0	1.42 ± 0.14
2	Yarragadee Formation	10	3.54 ± 0.30
3	Champion Bay Group	1032	4.14 ± 0.52
4	Cadda Formation	1051	4.14 ± 0.52
5	Cattamarra Coal Measure	1083	3.73 ± 0.20
6	Eneabba Formation	1312	2.62 ± 0.44
7	Kockatea Shale	1540	2.09 ± 0.06
8	Dongara Sandstone	1586	2.92 ± 0.56
9	Carynginia Formation	1608	1.77 ± 0.36
10	Irwin River Coal Measures	1685	3.02 ± 0.50
11	High Cliff Sandstone	1815	4.40 ± 0.20
12	High Cliff Sandstone	1850	4.40 ± 0.20
13	Holmwood Shale	1975	1.45 ± 0.15
14	Nangetty Formation	2210	2.75 ± 0.48
15	Wicherina Beds	2745	2.75 ± 0.48
16	Basement	2750	3.20 ± 0.40
17	Basement	3000	3.20 ± 0.40
18	Basement	3500	3.20 ± 0.40
19	Basement	4000	3.20 ± 0.40
20	Basement	4500	3.20 ± 0.40
21	Basement	5000	3.20 ± 0.40

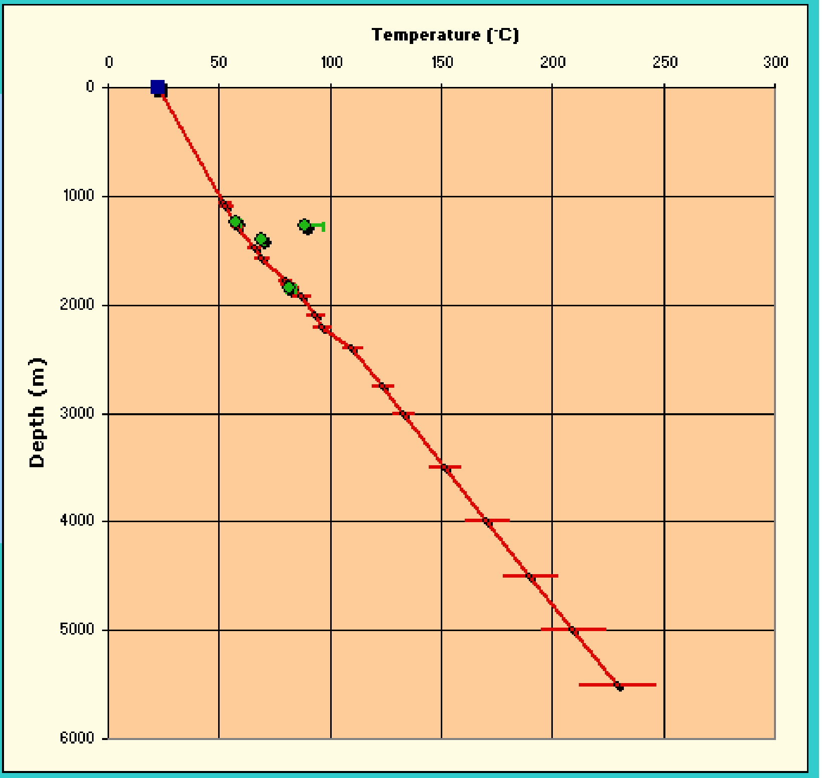


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1847	82.15	3	6	Horner corrected, depths averaged, two data points

Number of layers	20	Up to 50	Heat flow:	96 ± 3.2 mW/m2
"Depth" to ground level	0	"KB height"		
Total Depth (m)	5500	From drilling datum		
Surface temp. (°C)	22.5	Mt Horner-07		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	Yarragadee Formation	0	3.54 ± 0.30
2	Cadda Formation	1070	4.14 ± 0.52
3	Cattamarra Coal Measure	1100	3.73 ± 0.20
4	Eneabba Formation	1289	2.62 ± 0.44
5	Woodada Formation	1478	2.79 ± 0.12
6	Kockatea Shale	1574	2.09 ± 0.06
7	Dongara Sandstone	1787	2.92 ± 0.56
8	Carynginia Formation	1813	1.77 ± 0.36
9	Carynginia Formation	1848	1.77 ± 0.36
10	Irwin River Coal Measures	1920	3.02 ± 0.50
11	High Cliff Sandstone	2100	4.40 ± 0.20
12	Holmwood Shale	2220	1.45 ± 0.15
13	Nangetty Formation	2410	2.75 ± 0.48
14	Wicherina Beds	2746	2.75 ± 0.48
15	Basement	2750	3.20 ± 0.40
16	Basement	3000	3.20 ± 0.40
17	Basement	3500	3.20 ± 0.40
18	Basement	4000	3.20 ± 0.40
19	Basement	4500	3.20 ± 0.40
20	Basement	5000	3.20 ± 0.40

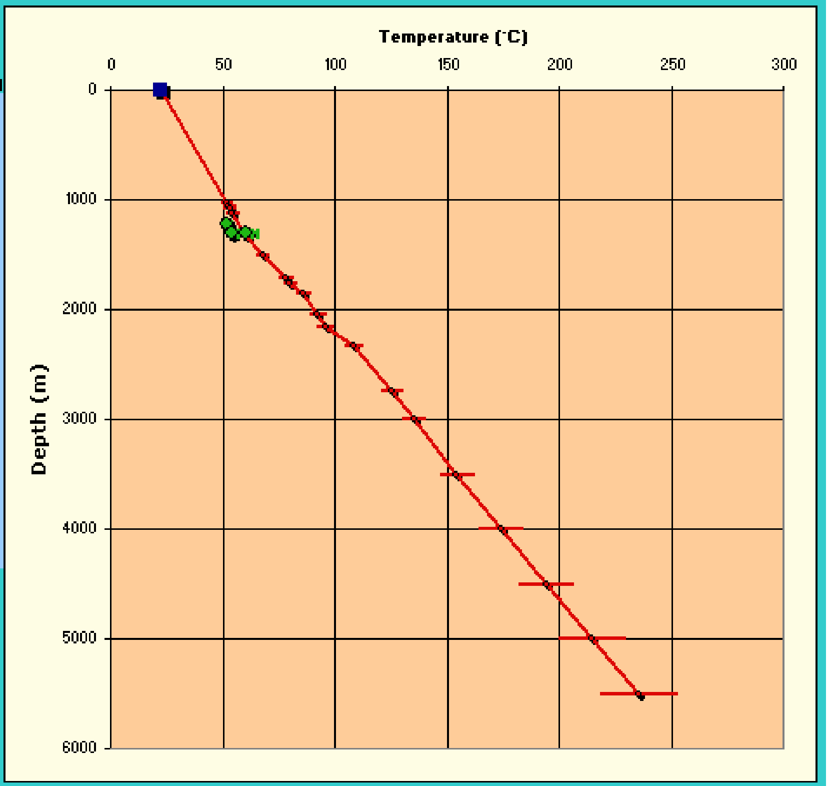


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1241.5	57.7	0	2	DST; 'Open hole test.
1407	68.8	0	2	DST; 'Open hole test.
1842.25	81.49	1	3	horner corrected, depths averaged
1270	88.33	0	8.89	BHT, ΔT is 115.92 hours

Number of layers	21	Up to 50	**Heat flow:** 99 ± 3.4 mW/m2
"Depth" to ground level	0	"KB height"	
Total Depth (m)	5500	From drilling datum	
Surface temp. (°C)	22.5	Mt Horner-08	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)	
1	Yarragadee Formation	0	3.54	± 0.30
2	Kojarena Sandstone	1024	4.14	± 0.52
3	Newmarracarra Limestone	1066	4.14	± 0.52
4	Colalura Sandstone	1072	4.14	± 0.52
5	Cattamarra Coal Measure	1127	3.73	± 0.20
6	Cattamarra Coal Measure	1306	3.73	± 0.20
7	Eneabba Formation	1315	2.62	± 0.44
8	Kockatea Shale	1510	2.09	± 0.06
9	Dongara Sandstone	1715	2.92	± 0.56
10	Carynginia Formation	1765	1.77	± 0.36
11	Irwin River Coal Measures	1865	3.02	± 0.50
12	High Cliff Sandstone	2040	4.40	± 0.20
13	Holmwood Shale	2165	1.45	± 0.15
14	Nangetty Formation	2340	2.75	± 0.48
15	Wicherina Beds	2745	2.75	± 0.48
16	Basement	2750	3.20	± 0.40
17	Basement	3000	3.20	± 0.40
18	Basement	3500	3.20	± 0.40
19	Basement	4000	3.20	± 0.40
20	Basement	4500	3.20	± 0.40
21	Basement	5000	3.20	± 0.40

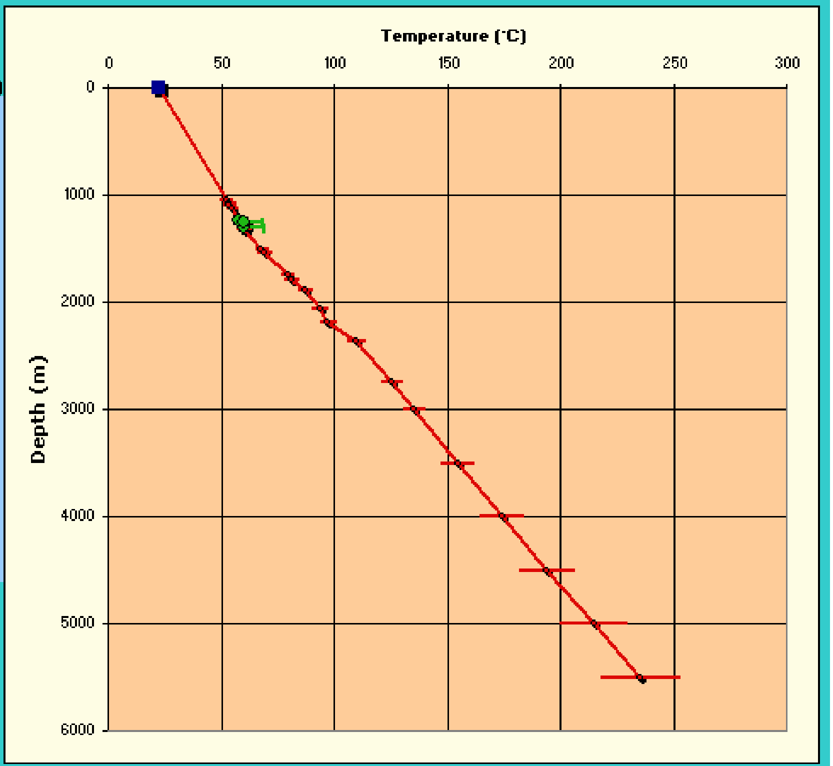


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1224.5	52.2	0	2	DST estimated; 'Open hole test.
1297	54.44	0	9.079	BHT, ΔT is 6 hours
1303	60.14	3	6	horner corrected, depths averaged

Number of layers	22	Up to 50	Heat flow:	99 ± 3.4 mW/m2
"Depth" to ground level	0	"KB height"		
Total Depth (m)	5500	From drilling datum		
Surface temp. (°C)	22.5	Mt Horner-09		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	Yarragadee Formation	0	3.54 ± 0.30
2	Kojarena Sandstone	1042	4.14 ± 0.52
3	Newmarracarra Limestone	1083	4.14 ± 0.52
4	Colalura Sandstone	1090	4.14 ± 0.52
5	Cattamarra Coal Measure	1134	3.73 ± 0.20
6	Cattamarra Coal Measure	1310	3.73 ± 0.20
7	Eneabba Formation	1324	2.62 ± 0.44
8	Woodada Formation	1514	2.79 ± 0.12
9	Kockatea Shale	1539	2.09 ± 0.06
10	Dongara Sandstone	1744	2.92 ± 0.56
11	Carynginia Formation	1794	1.77 ± 0.36
12	Irwin River Coal Measures	1894	3.02 ± 0.50
13	High Cliff Sandstone	2069	4.40 ± 0.20
14	Holmwood Shale	2194	1.45 ± 0.15
15	Nangetty Formation	2369	2.75 ± 0.48
16	Wicherina Beds	2745	2.75 ± 0.48
17	Basement	2750	3.20 ± 0.40
18	Basement	3000	3.20 ± 0.40
19	Basement	3500	3.20 ± 0.40
20	Basement	4000	3.20 ± 0.40
21	Basement	4500	3.20 ± 0.40
22	Basement	5000	3.20 ± 0.40

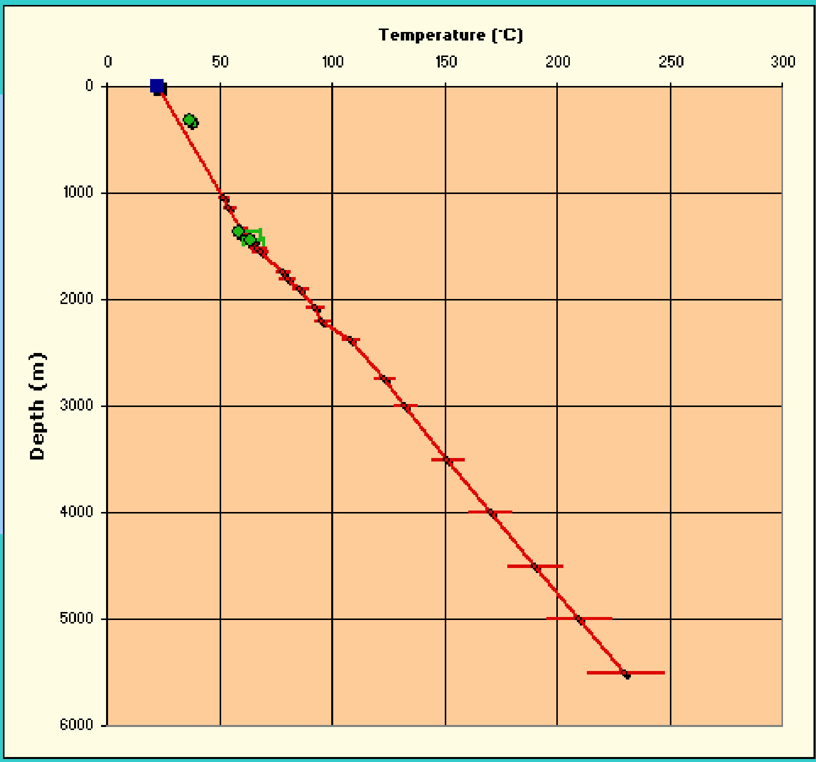


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1233	57.7	0	2	DST actual; 'Open hole test.
1305	60	0	9.135	BHT, ΔT is 8.37 hours
1308.6	60	0	9.1602	BHT, ΔT is 13.37 hours
1306.2	60	0	9.1434	BHT, ΔT is 17.47 hours
1309.5	60	0	9.1665	BHT, ΔT is 23.57 hours
1255	60	0	8.785	BHT, ΔT is 375 hours

Number of layers	20	Up to 50	Heat flow: 97 ± 3.3 mW/m2
"Depth" to ground level	0	"KB height"	
Total Depth (m)	5500	From drilling datum	
Surface temp. (°C)	22.5	Mt Horner-10	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	Yarragadee Formation	0	3.54 ± 0.30
2	Champion Bay Group	1041	4.14 ± 0.52
3	Cattamarra Coal Measure	1143	3.73 ± 0.20
4	Eneabba Formation	1333	2.62 ± 0.44
5	Eneabba Formation	1451	2.62 ± 0.44
6	Woodada Formation	1523	2.79 ± 0.12
7	Kockatea Shale	1548	2.09 ± 0.06
8	Dongara Sandstone	1753	2.92 ± 0.56
9	Caryngninia Formation	1803	1.77 ± 0.36
10	Irwin River Coal Measures	1903	3.02 ± 0.50
11	High Cliff Sandstone	2078	4.40 ± 0.20
12	Holmwood Shale	2203	1.45 ± 0.15
13	Nangetty Formation	2378	2.75 ± 0.48
14	Wicherina Beds	2745	2.75 ± 0.48
15	Basement	2750	3.20 ± 0.40
16	Basement	3000	3.20 ± 0.40
17	Basement	3500	3.20 ± 0.40
18	Basement	4000	3.20 ± 0.40
19	Basement	4500	3.20 ± 0.40
20	Basement	5000	3.20 ± 0.40

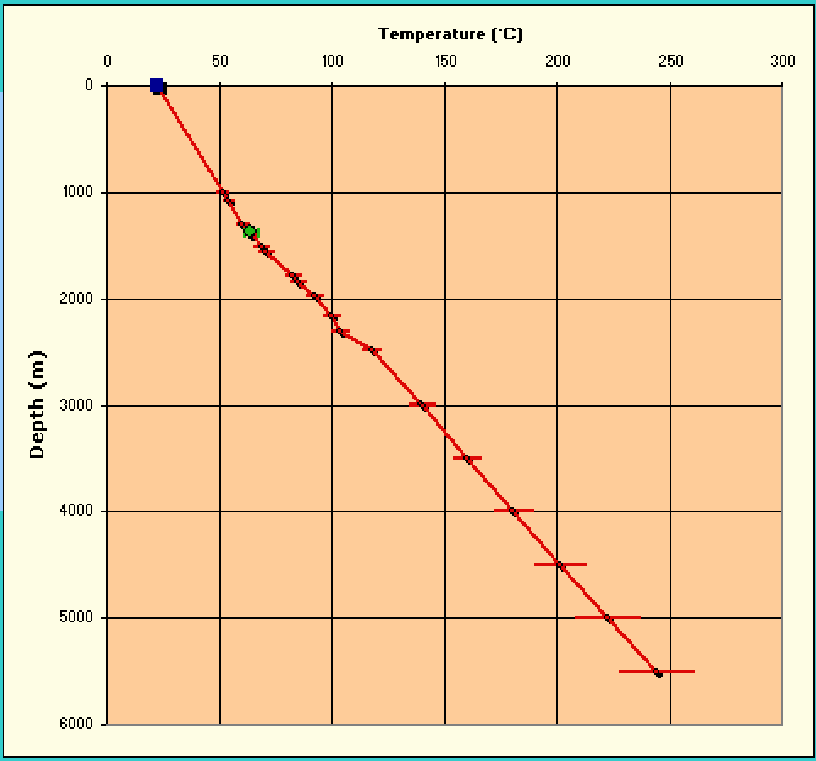


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1440.65	64.01	3	6	horner corrected, averaged depths, two data points
1360	58.89	0	9.52	BHT, ΔT is 5.5 hours
310	36.67	0	2.17	BHT, ΔT is 5.5 hours

Number of layers	19	Up to 50	**Heat flow:** 101 ± 3.6 mW/m2
"Depth" to ground level	0	"KB height"	
Total Depth (m)	5500	From drilling datum	
Surface temp. (°C)	22.5	Mt Horner-11	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	Yarragadee Formation	0	3.54 ± 0.30
2	Champion Bay Group	995	4.14 ± 0.52
3	Cattamarra Coal Measure	1090	3.73 ± 0.20
4	Eneabba Formation	1300	2.62 ± 0.44
5	Eneabba Formation	1408	2.62 ± 0.44
6	Woodada Formation	1510	2.79 ± 0.12
7	Kockatea Shale	1555	2.09 ± 0.06
8	Dongara Sandstone	1790	2.92 ± 0.56
9	Caryngninia Formation	1850	1.77 ± 0.36
10	Irwin River Coal Measures	1970	3.02 ± 0.50
11	High Cliff Sandstone	2160	4.40 ± 0.20
12	Holmwood Shale	2300	1.45 ± 0.15
13	Nangetty Formation	2490	2.75 ± 0.48
14	Wicherina Beds	2994	2.75 ± 0.48
15	Basement	3000	3.20 ± 0.40
16	Basement	3500	3.20 ± 0.40
17	Basement	4000	3.20 ± 0.40
18	Basement	4500	3.20 ± 0.40
19	Basement	5000	3.20 ± 0.40

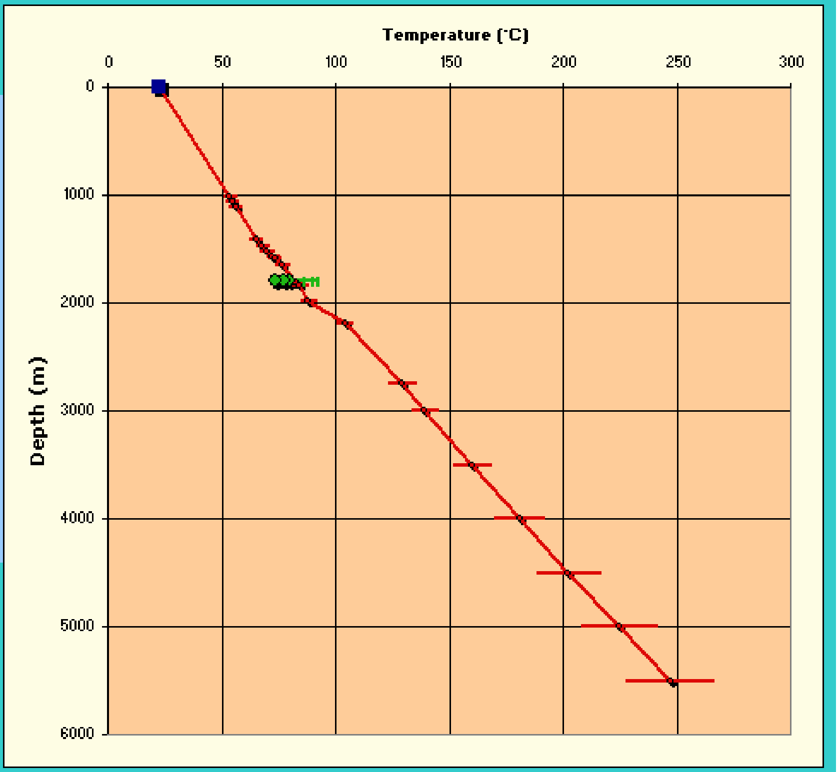


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1368.5	64.01	2	4	horner corrected, depths averaged

Number of layers	21	Up to 50	Heat flow:	105 ± 3.9 mW/m2
"Depth" to ground level	0	"KB height"		
Total Depth (m)	5500	From driling datum		
Surface temp. (°C)	22.5	Mt Horner-12		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	Yarragadee Formation	0	3.54 ± 0.30
2	Champion Bay Group	1019	4.14 ± 0.52
3	Newmarracarra Limestone	1056	4.14 ± 0.52
4	Cattamarra Coal Measure	1109	3.73 ± 0.20
5	Eneabba Formation	1411	2.62 ± 0.44
6	Woodada Formation	1469	2.79 ± 0.12
7	Kockatea Shale	1519	2.09 ± 0.06
8	Dongara Sandstone	1569	2.92 ± 0.56
9	Carynginia Formation	1593	1.77 ± 0.36
10	Irwin River Coal Measures	1646	3.02 ± 0.50
11	Irwin River Coal Measures	1805	3.02 ± 0.50
12	High Cliff Sandstone	1841	4.40 ± 0.20
13	Holmwood Shale	1981	1.45 ± 0.15
14	Nangetty Formation	2191	2.75 ± 0.48
15	Wicherina Beds	2745	2.75 ± 0.48
16	Basement	2750	3.20 ± 0.40
17	Basement	3000	3.20 ± 0.40
18	Basement	3500	3.20 ± 0.40
19	Basement	4000	3.20 ± 0.40
20	Basement	4500	3.20 ± 0.40
21	Basement	5000	3.20 ± 0.40

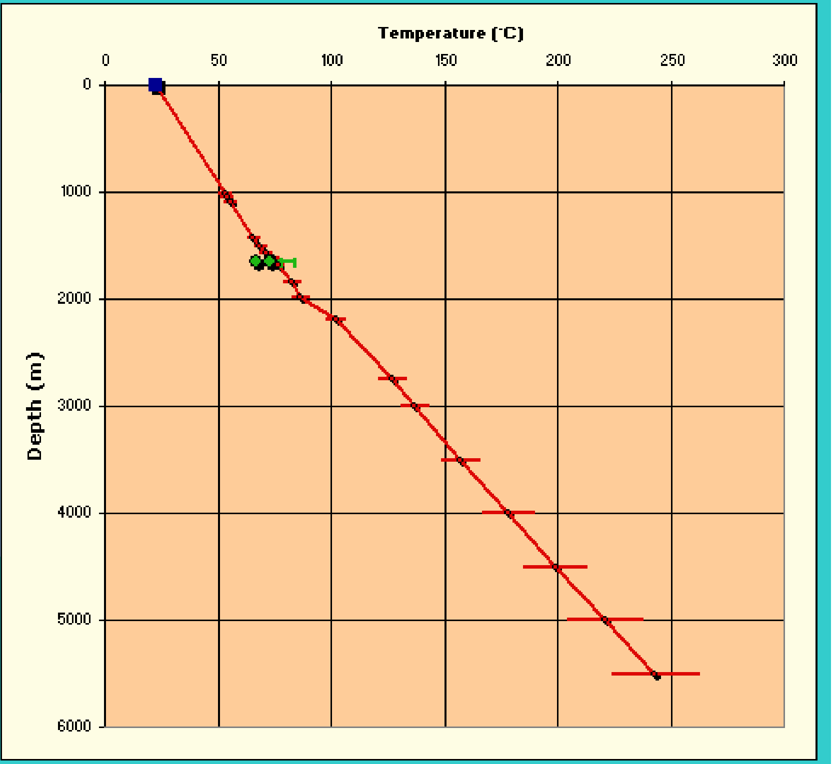


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1787	80	0	12.509	BHT, ΔT not recorded
1787	77.8	0	12.509	BHT, ΔT is 15.93 hours
1791	73.9	0	12.537	BHT, ΔT is 7 hours

Number of layers	21	Up to 50	Heat flow: 104 ± 3.8 mW/m2
"Depth" to ground level	0	"KB height"	
Total Depth (m)	5500	From drilling datum	
Surface temp. (°C)	22.5	Mt Horner-13	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	Yarragadee Formation	0	3.54 ± 0.30
2	Champion Bay Group	1009	4.14 ± 0.52
3	Newmarracarra Limestone	1049	4.14 ± 0.52
4	Cattamarra Coal Measure	1098	3.73 ± 0.20
5	Eneabba Formation	1436	2.62 ± 0.44
6	Woodada Formation	1505	2.79 ± 0.12
7	Kockatea Shale	1573	2.09 ± 0.06
8	Dongara Sandstone	1625	2.92 ± 0.56
9	Carynginia Formation	1633	1.77 ± 0.36
10	Irwin River Coal Measures	1646	3.02 ± 0.50
11	Irwin River Coal Measures	1676	3.02 ± 0.50
12	High Cliff Sandstone	1846	4.40 ± 0.20
13	Holmwood Shale	1986	1.45 ± 0.15
14	Nangetty Formation	2191	2.75 ± 0.48
15	Wicherina Beds	2745	2.75 ± 0.48
16	Basement	2750	3.20 ± 0.40
17	Basement	3000	3.20 ± 0.40
18	Basement	3500	3.20 ± 0.40
19	Basement	4000	3.20 ± 0.40
20	Basement	4500	3.20 ± 0.40
21	Basement	5000	3.20 ± 0.40

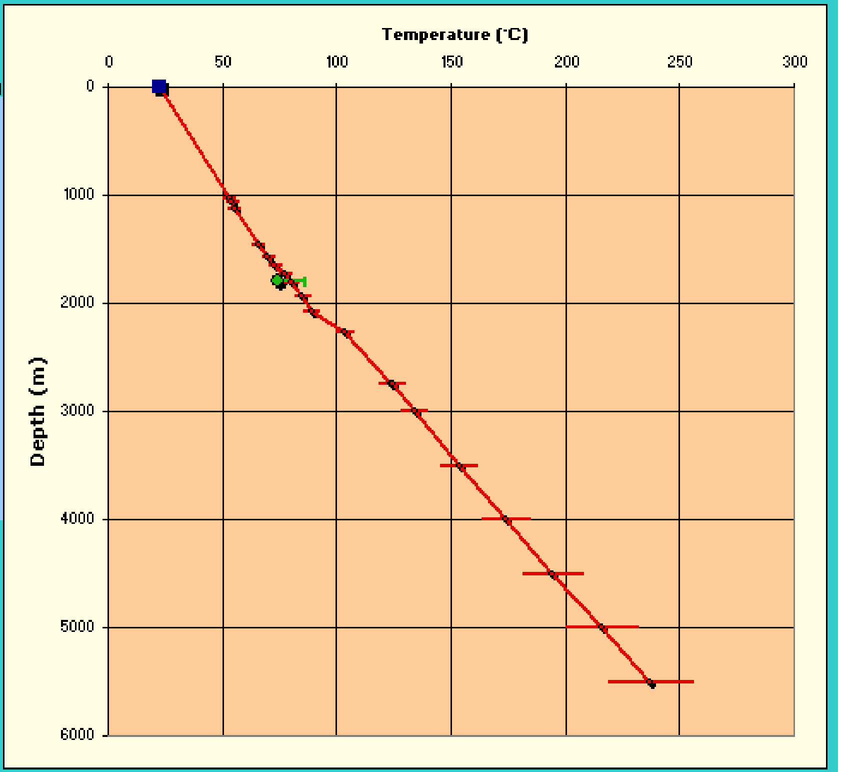


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1651	67	0	11.557	BHT, ΔT not recorded
1650	73	0	11.55	BHT, ΔT not recorded

Number of layers	19	Up to 50	Heat flow:	102 ± 3.6 mW/m2
"Depth" to ground level	0	"KB height"		
Total Depth (m)	5500	From drilling datum		
Surface temp. (°C)	22.5	Mt Horner-14		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	Yarragadee Formation	0	3.54 ± 0.30
2	Champion Bay Group	1029	4.14 ± 0.52
3	Newmarracarra Limestone	1070	4.14 ± 0.52
4	Cattamarra Coal Measure	1120	3.73 ± 0.20
5	Eneabba Formation	1466	2.62 ± 0.44
6	Woodada Formation	1569	2.79 ± 0.12
7	Kockatea Shale	1643	2.09 ± 0.06
8	Irwin River Coal Measures	1731	3.02 ± 0.50
9	Irwin River Coal Measures	1803	3.02 ± 0.50
10	High Cliff Sandstone	1931	4.40 ± 0.20
11	Holmwood Shale	2076	1.45 ± 0.15
12	Nangetty Formation	2271	2.75 ± 0.48
13	Wicherina Beds	2745	2.75 ± 0.48
14	Basement	2750	3.20 ± 0.40
15	Basement	3000	3.20 ± 0.40
16	Basement	3500	3.20 ± 0.40
17	Basement	4000	3.20 ± 0.40
18	Basement	4500	3.20 ± 0.40
19	Basement	5000	3.20 ± 0.40

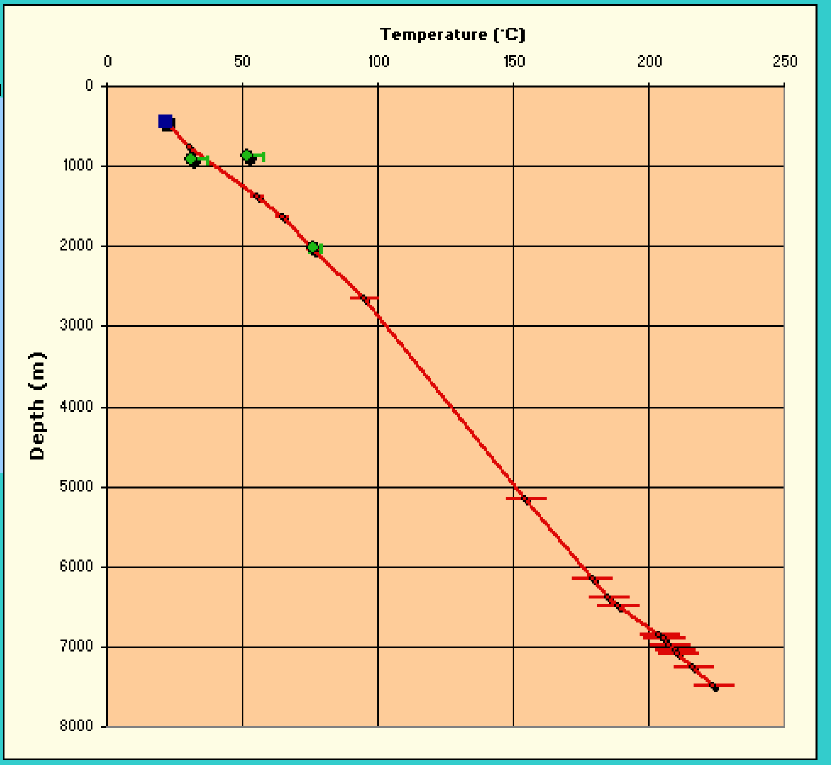


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1794	74	0	12.558	BHT, ΔT is 8.25 hours

Number of layers	17	Up to 50	Heat flow:	69 ± 2.2 mW/m2
"Depth" to ground level	443	"KB height"		
Total Depth (m)	7500	From drilling datum		
Surface temp. (°C)	21.625	Mullaloo-1		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		443	2.56 ± 0.18
2	Leederville Formation	443	2.56 ± 0.18
3	South Perth Shale	772	1.71 ± 0.14
4	Gage Sandstone	1377	1.93 ± 0.04
5	Parmelia Group	1625	2.58 ± 0.33
6	Parmelia Group	2030	2.58 ± 0.33
7	Yarragadee Formation	2652	3.54 ± 0.30
8	Cattamarra Coal Measure	5152	3.73 ± 0.20
9	Lesueur Sandstone	6152	3.56 ± 0.23
10	Sabina Sandstone	6386	2.79 ± 0.12
11	Willespie Formation	6497	1.96 ± 0.11
12	Redgate Coal Measures	6845	2.87 ± 0.09
13	Ashbrook Sandstone	6894	3.98 ± 0.24
14	Rosabrook Coal Measure	6980	2.87 ± 0.09
15	Woodynook Sandstone	7045	4.15 ± 0.28
16	Mosswood Formation	7085	2.75 ± 0.42
17	Basement	7250	3.20 ± 0.40

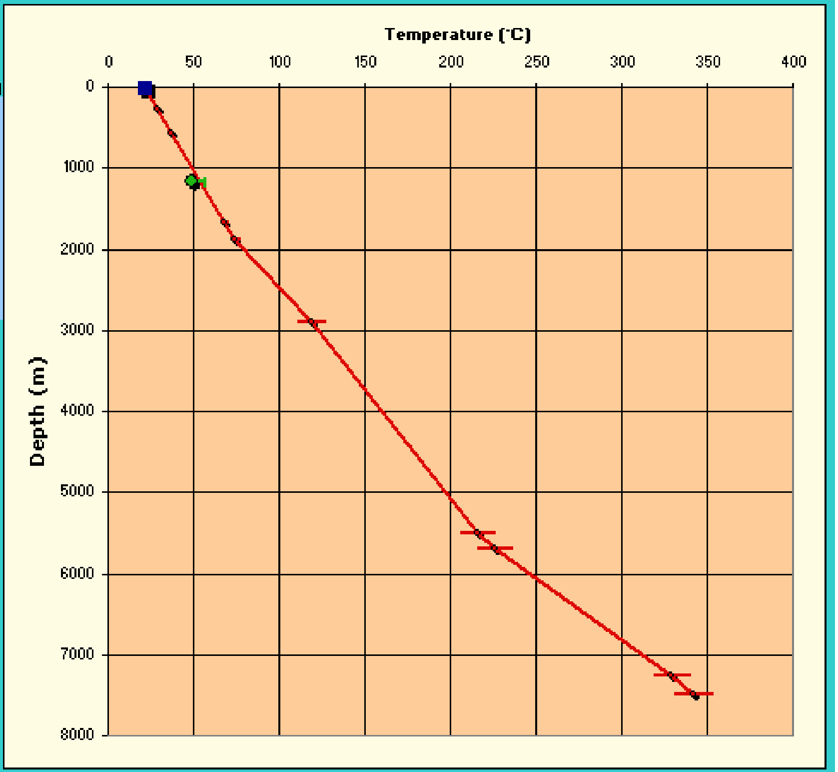


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
2015.5	76.1	1	3	horner corrected, depths averaged
903	31.1	0	6.321	BHT, ΔT is 3.05 hours
863	52	0	6.041	BHT, ΔT is 9.42 hours

Number of layers	10	Up to 50	Heat flow:	101 ± 3.4 mW/m2
"Depth" to ground level	14	"KB height"		
Total Depth (m)	7500	From drilling datum		
Surface temp. (°C)	21.625	Mullering-1		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		14	3.54 ± 0.30
2	Yarragadee Formation	14	3.54 ± 0.30
3	Cadda Formation	284	4.14 ± 0.52
4	Cattamarra Coal Measure	574	3.73 ± 0.20
5	Cattamarra Coal Measure	1666	3.73 ± 0.20
6	Eneabba Formation	1875	2.62 ± 0.44
7	Leseuer Sandstone	2900	3.56 ± 0.23
8	Woodada Formation	5500	2.79 ± 0.12
9	Kockatea Shale	5700	2.09 ± 0.06
10	Basement	7250	3.20 ± 0.40

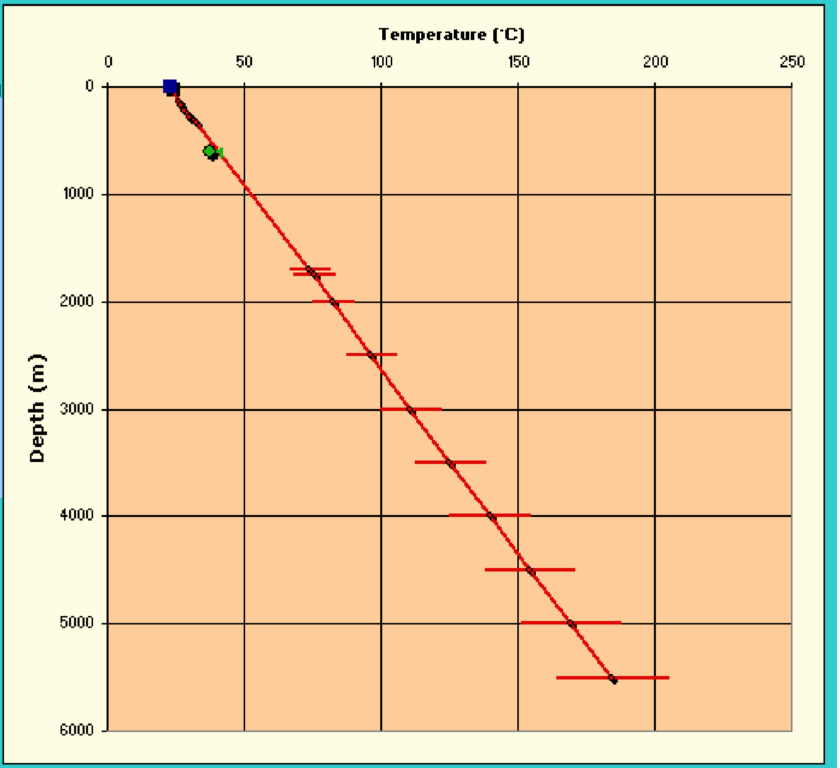


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1156	49	0	8.092	BHT, ΔT is 6.5 hours
1156	49	0	8.092	BHT, ΔT is 11.5 hours

Number of layers	18	Up to 50	**Heat flow:** 80 ± 4.3 mW/m2
"Depth" to ground level	0	"KB height"	
Total Depth (m)	5500	From drilling datum	
Surface temp. (°C)	23.125	**Mungarra-1**	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		0	1.42 ± 0.14
2	Yarragadee Formation	2	3.54 ± 0.30
3	Cadda Formation	145	4.14 ± 0.52
4	Cattamarra Coal Measure	175	3.73 ± 0.20
5	Kockatea Shale	223	2.09 ± 0.06
6	Wagina Sandstone	252	2.92 ± 0.56
7	Carynginia Formation	283	1.77 ± 0.36
8	Irwin River Coal Measures	316	3.02 ± 0.50
9	Nangetty Formation	340	2.75 ± 0.48
10	Wicherina Beds	1700	2.75 ± 0.48
11	Basement	1750	3.20 ± 0.40
12	Basement	2000	3.20 ± 0.40
13	Basement	2500	3.20 ± 0.40
14	Basement	3000	3.20 ± 0.40
15	Basement	3500	3.20 ± 0.40
16	Basement	4000	3.20 ± 0.40
17	Basement	4500	3.20 ± 0.40
18	Basement	5000	3.20 ± 0.40

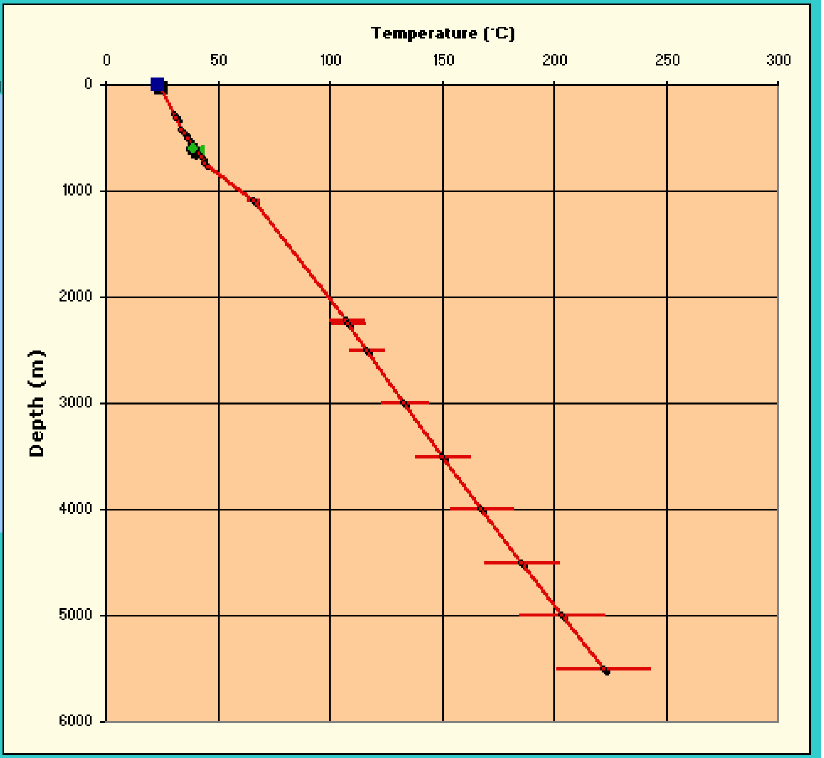


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
608.9904	37.77	0	4.2629	BHT, ΔT not recorded
608.9904	37.77	0	4.2629	BHT, ΔT not recorded
607.7712	37.77	0	4.2544	BHT, ΔT not recorded
607.7712	37.77	0	4.2544	BHT, ΔT not recorded

Number of layers	20	Up to 50	**Heat flow:**	**90 ± 4.2 mW/m2**
"Depth" to ground level	2	"KB height"		
Total Depth (m)	5500	From driling datum		
Surface temp. (˚C)	23.125	**Mungarra-5**		

	Formation Name	Top (m)	Cond @ 25˚C (W/mK)
1		2	1.42 ± 0.14
2	Unnamed/laterite	2	1.42 ± 0.14
3	Yarragadee Formation	12	3.54 ± 0.30
4	Cadda Formation	281	4.14 ± 0.52
5	Cattamarra Coal Measure	322	3.73 ± 0.20
6	Kockatea Shale	422	2.09 ± 0.06
7	Wagina Sandstone	457	2.92 ± 0.56
8	Irwin River Coal Measures	508	3.02 ± 0.50
9	Irwin River Coal Measures	622	3.02 ± 0.50
10	High Cliff Sandstone	686	4.40 ± 0.20
11	Holmwood Shale	751	1.45 ± 0.15
12	Nangetty Formation	1096	2.75 ± 0.48
13	Wicherina Beds	2230	2.75 ± 0.48
14	Basement	2250	3.20 ± 0.40
15	Basement	2500	3.20 ± 0.40
16	Basement	3000	3.20 ± 0.40
17	Basement	3500	3.20 ± 0.40
18	Basement	4000	3.20 ± 0.40
19	Basement	4500	3.20 ± 0.40
20	Basement	5000	3.20 ± 0.40

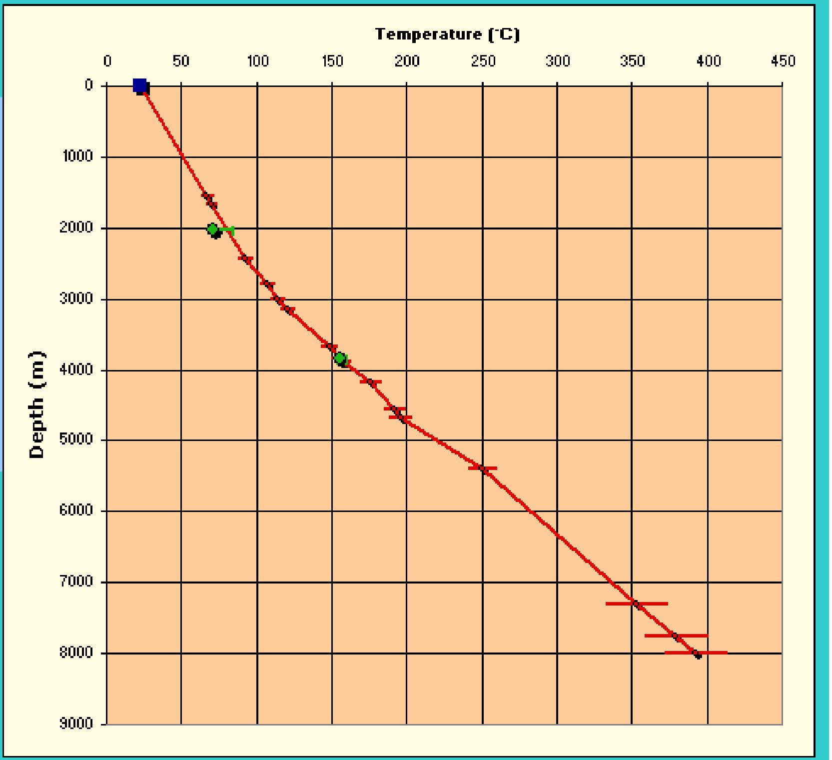


Downhole temperature data (˚C):

Depth (m)	Value	-uncert	+uncert	Comment:
614.4768	39	0	4.3013	BHT, ΔT not recorded
612.3432	39	0	4.2864	BHT, ΔT not recorded
610.2096	39	0	4.2715	BHT, ΔT not recorded

Number of layers	17	Up to 50	Heat flow: 97 ± 5.4 mW/m2
"Depth" to ground level	8	"KB height"	
Total Depth (m)	8000	From drilling datum	
Surface temp. (°C)	22.5	Mungenooka-1	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		8	3.54 ± 0.30
2	Yarragadee Formation	8	3.54 ± 0.30
3	Cadda Formation	1553	4.14 ± 0.52
4	Cattamarra Coal Measure	1677	3.73 ± 0.20
5	Eneabba Formation	2445	2.62 ± 0.44
6	Lesueur Sandstone	2789	3.56 ± 0.23
7	Woodada Formation	3004	2.79 ± 0.12
8	Kockatea Shale	3159	2.09 ± 0.06
9	Dongarra Sandstone	3680	2.92 ± 0.56
10	Dongarra Sandstone	3842	2.92 ± 0.56
11	Caryngninia Formation	3896	1.77 ± 0.36
12	Irwin River Coal Measures	4187	3.02 ± 0.50
13	High Cliff Sandstone	4551	4.40 ± 0.20
14	Holmwood Shale	4683	1.45 ± 0.15
15	Nangetty Formation	5400	2.75 ± 0.48
16	Wicherina Beds	7300	2.75 ± 0.48
17	Basement	7750	3.20 ± 0.40

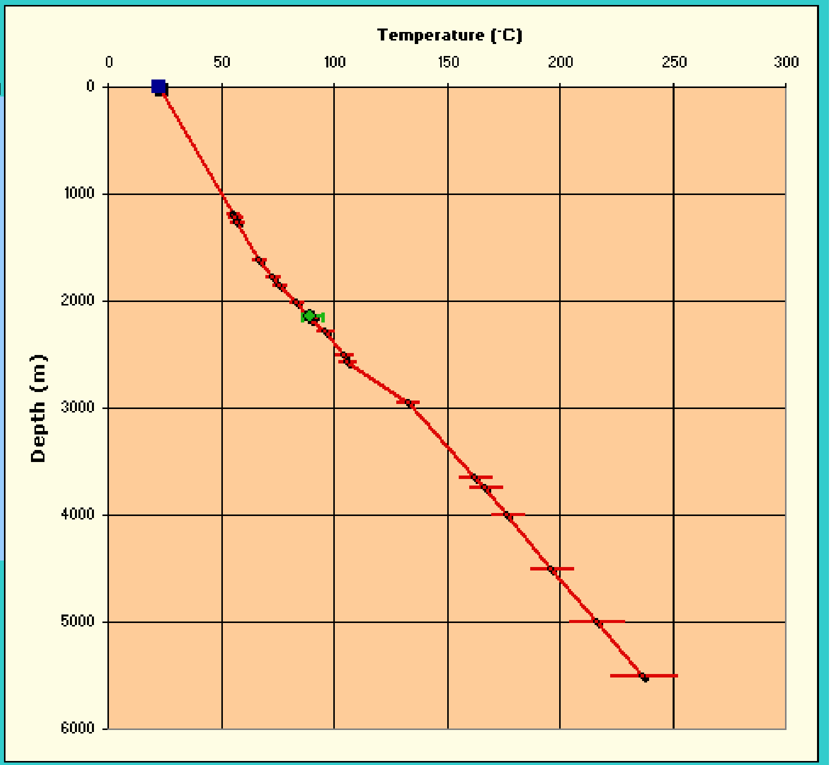


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
3842.5	156.1	2	4	Horner corrected, depths averaged
2019.7	71	0	14.138	BHT, ΔT is 10.33 hours

Number of layers	21	Up to 50	Heat flow: 95 ± 3.7 mW/m2
"Depth" to ground level	5	"KB height"	
Total Depth (m)	5500	From drilling datum	
Surface temp. (°C)	22.5	Murrumbah-1	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		5	3.54 ± 0.30
2	Yarragadee Formation	5	3.54 ± 0.30
3	Cadda Formation	1191	4.14 ± 0.52
4	Newmarracarra Limestone	1212	4.14 ± 0.52
5	Colalura Sandstone	1229	4.14 ± 0.52
6	Cattamarra Coal Measure	1267	3.73 ± 0.20
7	Eneabba Formation	1625	2.62 ± 0.44
8	Woodada Formation	1771	2.79 ± 0.12
9	Kockatea Shale	1859	2.09 ± 0.06
10	Dongara Sandstone	2014	2.92 ± 0.56
11	Dongara Sandstone	2150	2.92 ± 0.56
12	Carynginia Formation	2155	1.77 ± 0.36
13	Irwin River Coal Measures	2280	3.02 ± 0.50
14	High Cliff Sandstone	2515	4.40 ± 0.20
15	Holmwood Shale	2570	1.45 ± 0.15
16	Nangetty Formation	2950	2.75 ± 0.48
17	Wicherina Beds	3650	2.75 ± 0.48
18	Basement	3750	3.20 ± 0.40
19	Basement	4000	3.20 ± 0.40
20	Basement	4500	3.20 ± 0.40
21	Basement	5000	3.20 ± 0.40

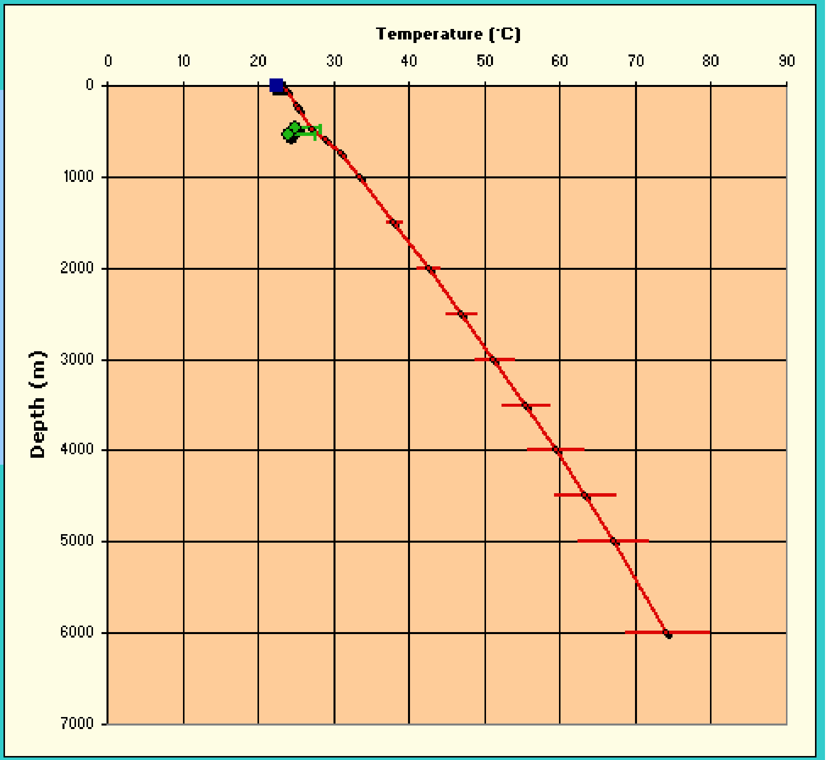


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
2136.25	89.77	3	6	horner corrected, depths averaged, two data points

Number of layers	17	Up to 50	Heat flow	30 ± 1.1 mW/m2
"Depth" to ground level	0	"KB height"		
Total Depth (m)	6000	From drilling datum		
Surface temp. (°C)	22.5	Narkarino-1		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	Recent/alluvium	0	1.42 ± 0.14
2	coastal Limestone	3	1.42 ± 0.14
3	Yarragadee Formation	59	3.54 ± 0.30
4	Cadda Formation	214	4.14 ± 0.52
5	Cattamarra Coal Measure	255	3.73 ± 0.20
6	Kockatea Shale	487	2.09 ± 0.06
7	Kockatea Shale	600	2.09 ± 0.06
8	Basement	750	3.20 ± 0.40
9	Basement	1000	3.20 ± 0.40
10	Basement	1500	3.20 ± 0.40
11	Basement	2000	3.20 ± 0.40
12	Basement	2500	3.20 ± 0.40
13	Basement	3000	3.20 ± 0.40
14	Basement	3500	3.20 ± 0.40
15	Basement	4000	3.20 ± 0.40
16	Basement	4500	3.20 ± 0.40
17	Basement	5000	3.20 ± 0.40

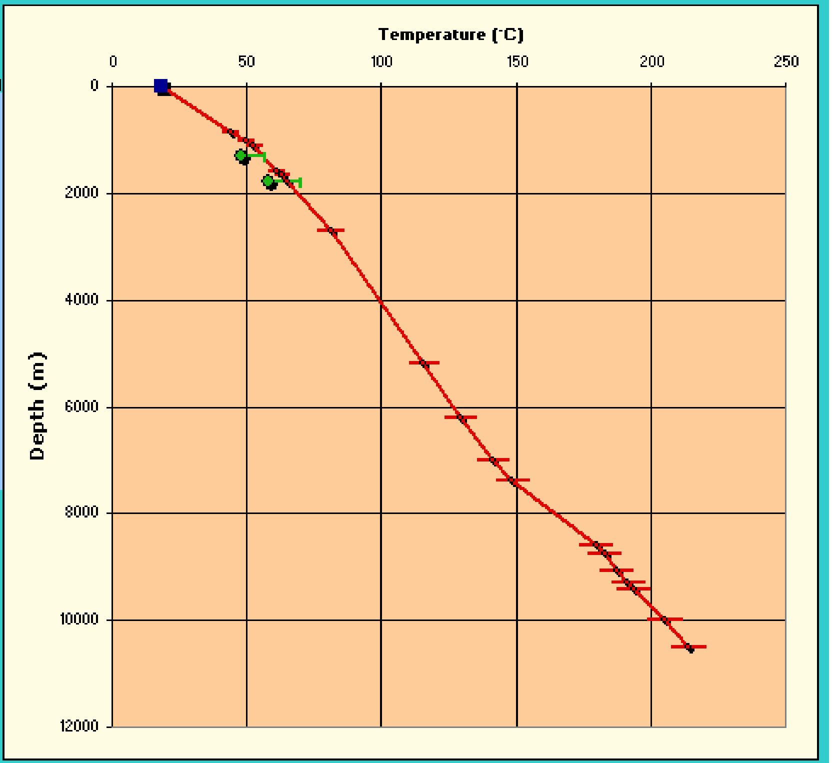


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
462	25	0	3.234	BHT, ΔT not recorded
530	24	0	3.71	BHT, ΔT not recorded

Number of layers	18	Up to 50	Heat flow:	42 ± 1.2 mW/m2
"Depth" to ground level	0	"KB height"		
Total Depth (m)	10500	From drilling datum		
Surface temp. (°C)	18	Parmelia-1		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	Tertiary/carbonate	0	1.42 ± 0.14
2	Coolyena Group	873	1.13 ± 0.08
3	Osborne Formation	1025	1.13 ± 0.08
4	Leederville Formation	1108	2.56 ± 0.18
5	South Perth Shale	1593	1.71 ± 0.14
6	Parmelia Group	1669	2.58 ± 0.33
7	Parmelia Group	1770	2.58 ± 0.33
8	Yarragadee Formation	2696	3.54 ± 0.30
9	Cattamarra Coal Measure	5196	3.73 ± 0.20
10	Lesueur Sandstone	6196	3.56 ± 0.23
11	Sabina Sandstone	7006	2.79 ± 0.12
12	Willespie Formation	7392	1.96 ± 0.11
13	Redgate Coal Measures	8602	2.87 ± 0.09
14	Ashbrook Sandstone	8769	3.98 ± 0.24
15	Rosabrook Coal Measure	9068	2.87 ± 0.09
16	Woodynook Sandstone	9294	4.15 ± 0.28
17	Mosswood Formation	9432	2.75 ± 0.42
18	Basement	10000	3.20 ± 0.40

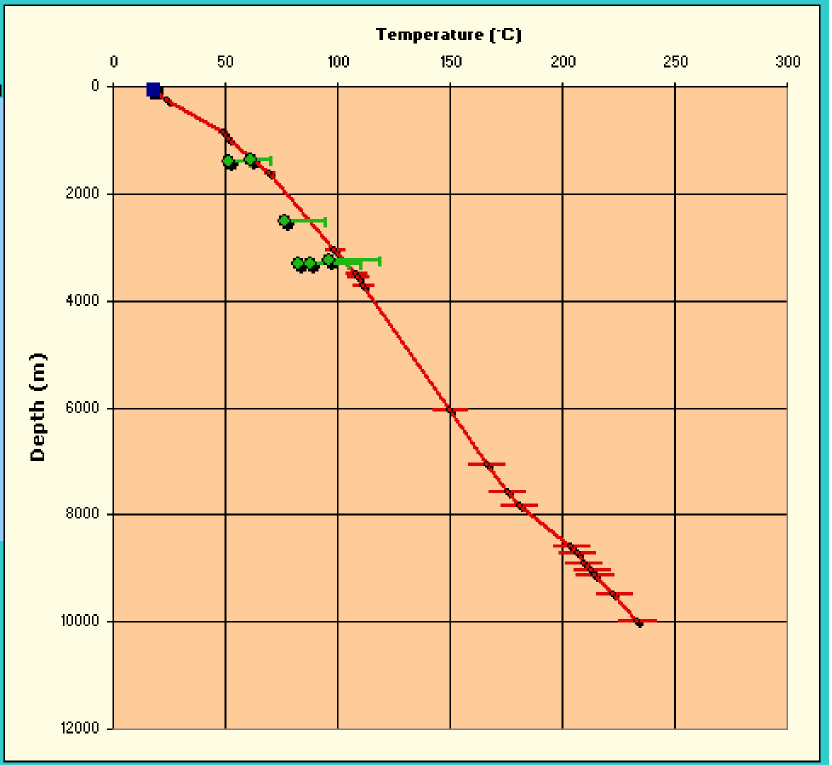


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1300	48	0	9.1	BHT, ΔT not recorded
1770	58	0	12.39	BHT, ΔT not recorded

Number of layers	20	Up to 50	Heat flow: 47 ± 1.3 mW/m2
"Depth" to ground level	72	"KB height"	
Total Depth (m)	10000	From driling datum	
Surface temp. (°C)	18	Peel-1	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		72	1.42 ± 0.14
2	Tertiary	72	1.42 ± 0.14
3	Coolyena Group	265	1.13 ± 0.08
4	Leederville Formation	859	2.56 ± 0.18
5	South Perth Shale	987	1.71 ± 0.14
6	Charlotte Sandstone	1625	2.58 ± 0.33
7	Jervoise Sandstone	3064	2.58 ± 0.33
8	Otorowiri Group	3505	2.58 ± 0.33
9	Yarragadee Formation	3551	3.54 ± 0.30
10	Yarragadee Formation	3714	3.54 ± 0.30
11	Cattamarra Coal Measure	6051	3.73 ± 0.20
12	Lesueur Sandstone	7051	3.56 ± 0.23
13	Sabina Sandstone	7572	2.79 ± 0.12
14	Willespie Formation	7820	1.96 ± 0.11
15	Redgate Coal Measures	8599	2.87 ± 0.09
16	Ashbrook Sandstone	8707	3.98 ± 0.24
17	Rosabrook Coal Measure	8900	2.87 ± 0.09
18	Woodynook Sandstone	9046	4.15 ± 0.28
19	Mosswood Formation	9135	2.75 ± 0.42
20	Basement	9500	3.20 ± 0.40

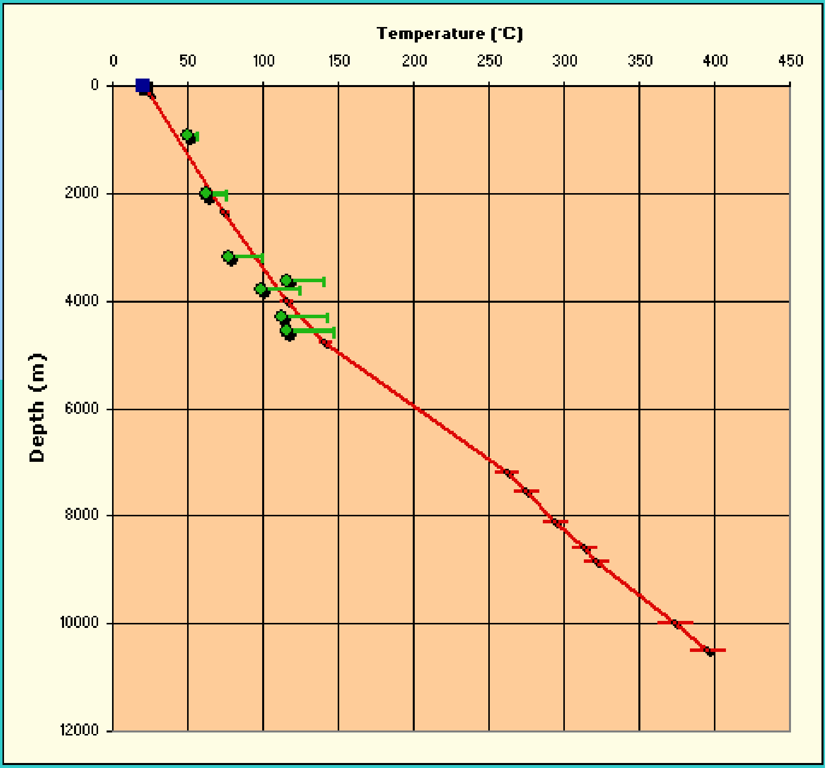


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1405	51.67	0	9.835	BHT, ΔT not recorded
2526	76.7	0	17.682	BHT, ΔT not recorded
1375	61.11	0	9.625	BHT, ΔT not recorded
3299	82.22	0	23.093	BHT, ΔT not recorded
3300	87.78	0	23.1	BHT, ΔT not recorded
3243	96	0	22.701	BHT, ΔT not recorded

Number of layers	13	Up to 50	Heat flow:	78 ± 2.4 mW/m2
"Depth" to ground level	5	"KB height"		
Total Depth (m)	10500	From drilling datum		
Surface temp. (°C)	20.375	Pinjarra-1		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		5	1.42 ± 0.14
2	Quaternary	5	1.42 ± 0.14
3	Leederville Formation	24	2.56 ± 0.18
4	Cattamarra Coal Measure	149	3.73 ± 0.20
5	Lesueur Sandstone	2371	3.56 ± 0.23
6	Sabina Sandstone	3995	2.79 ± 0.12
7	Willespie Formation	4769	1.96 ± 0.11
8	Redgate Coal Measures	7197	2.87 ± 0.09
9	Ashbrook Sandstone	7531	3.98 ± 0.24
10	Rosabrook Coal Measure	8131	2.87 ± 0.09
11	Woodynook Sandstone	8585	4.15 ± 0.28
12	Mosswood Formation	8862	2.75 ± 0.42
13	Basement	10000	3.20 ± 0.40

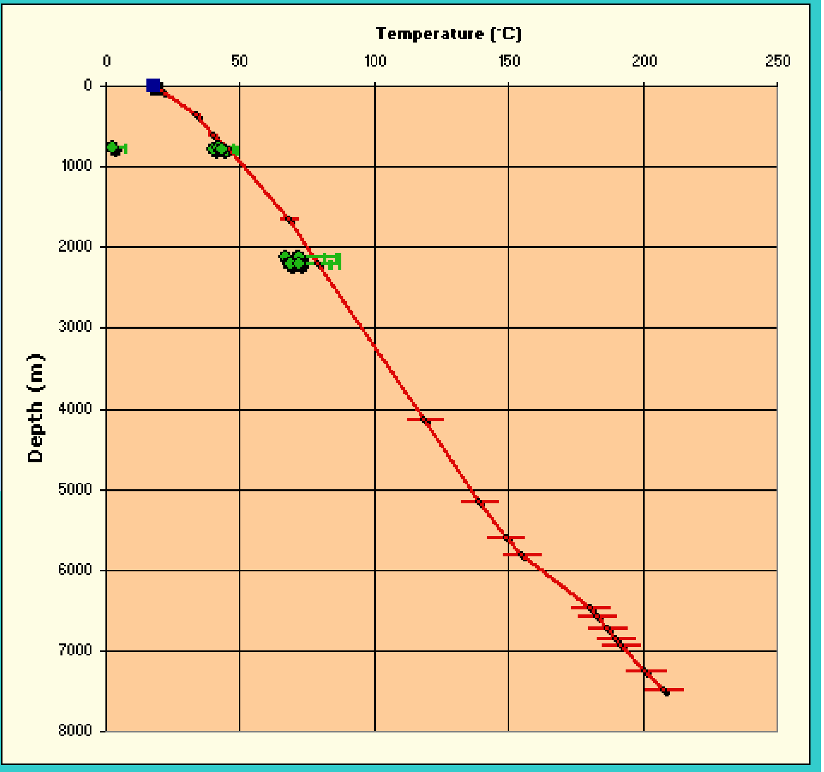


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
917.7528	50	0	6.4243	BHT, ΔT not recorded
922.02	50	0	6.4541	BHT, ΔT not recorded
918.6672	50	0	6.4307	BHT, ΔT not recorded
2021.74	62.22	0	14.152	BHT, ΔT not recorded
2018.99	62.22	0	14.133	BHT, ΔT not recorded
3191.256	77.78	0	22.339	BHT, ΔT not recorded
3189.1224	77.78	0	22.324	BHT, ΔT not recorded
3189.1224	77.78	0	22.324	BHT, ΔT not recorded
3179.9784	77.78	0	22.26	BHT, ΔT not recorded
3801.1608	98.33	0	26.608	BHT, ΔT not recorded
3798.7224	98.33	0	26.591	BHT, ΔT not recorded
3798.7224	98.33	0	26.591	BHT, ΔT not recorded
4295.2416	112.78	0	30.067	BHT, ΔT not recorded
4288.8408	112.78	0	30.022	BHT, ΔT not recorded
4569.2568	115.56	0	31.985	BHT, ΔT not recorded
4567.1232	115.56	0	31.97	BHT, ΔT not recorded
4569.8664	115.56	0	31.989	BHT, ΔT not recorded
3619.5	115.56	0	25.337	BHT, ΔT not recorded
4556.76	115.56	0	31.897	BHT, ΔT not recorded

Number of layers	18	Up to 50	**Heat flow:** 62 ± 1.8 mW/m2
"Depth" to ground level	0	"KB height"	
Total Depth (m)	7500	From drilling datum	
Surface temp. (°C)	18	**Quinns Rock-1**	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		0	1.42 ± 0.14
2	Tertiary	65	1.42 ± 0.14
3	Leederville Formation	356	2.56 ± 0.18
4	South Perth Shale	611	1.71 ± 0.14
5	Gage Sandstone	775	1.93 ± 0.04
6	Parmelia Group	780	2.58 ± 0.33
7	Yarragadee Formation	1647	3.54 ± 0.30
8	Yarragadee Formation	2209	3.54 ± 0.30
9	Cattamarra Coal Measure	4147	3.73 ± 0.20
10	Lesueur Sandstone	5147	3.56 ± 0.23
11	Sabina Sandstone	5595	2.79 ± 0.12
12	Willespie Formation	5808	1.96 ± 0.11
13	Redgate Coal Measures	6477	2.87 ± 0.09
14	Ashbrook Sandstone	6570	3.98 ± 0.24
15	Rosabrook Coal Measure	6735	2.87 ± 0.09
16	Woodynook Sandstone	6860	4.15 ± 0.28
17	Mosswood Formation	6936	2.75 ± 0.42
18	Basement	7250	3.20 ± 0.40

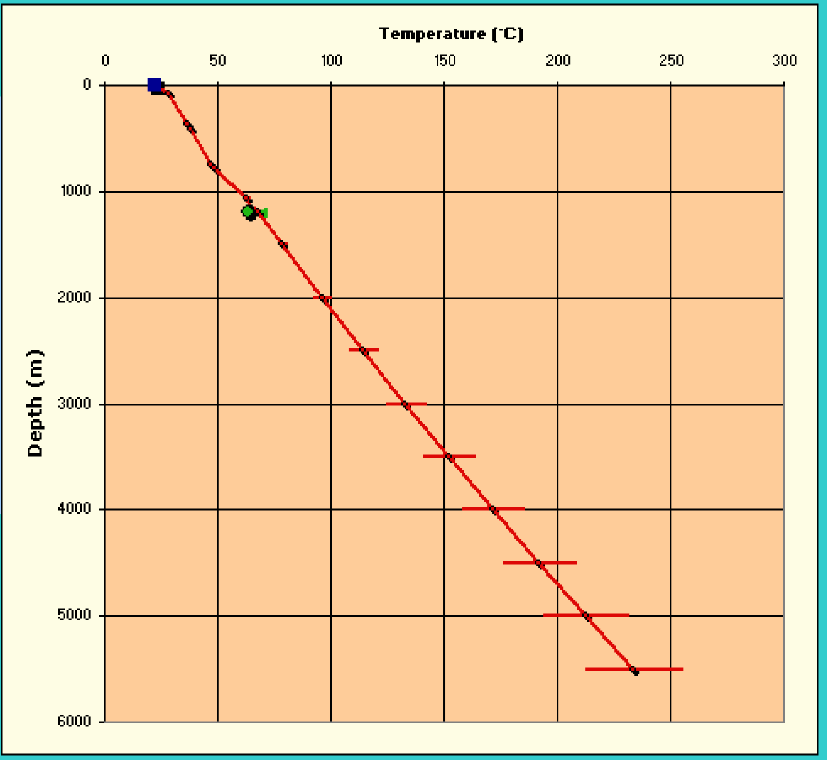


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
777.24	40	0	5.4407	BHT, ΔT not recorded
774.19	42.22	0	5.4193	BHT, ΔT not recorded
774.192	2.3	0	5.4193	BHT, ΔT not recorded
784.86	43.33	0	5.494	BHT, ΔT not recorded
2128.4184	67	0	14.899	BHT, ΔT not recorded
2128.7232	71.11	0	14.901	BHT, ΔT not recorded
2125.6752	72.22	0	14.88	BHT, ΔT not recorded
2128.7232	66.67	0	14.901	BHT, ΔT not recorded
2203.09	68	0	15.422	BHT, ΔT not recorded
2203.0944	68.89	0	15.422	BHT, ΔT not recorded
2204.9232	72.22	0	15.434	BHT, ΔT not recorded

Number of layers	19	Up to 50	Heat flow:	101 ± 3.4 mW/m2
"Depth" to ground level	3	"KB height"		
Total Depth (m)	5500	From driling datum		
Surface temp. (°C)	22.5	Rukrani-1		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		3	1.42 ± 0.14
2	Unnamed/coastal Limeston	3	1.42 ± 0.14
3	Yarragadee Formation	83	3.54 ± 0.30
4	Cadda Formation	368	4.14 ± 0.52
5	Cattamarra Coal Measures	420	3.73 ± 0.20
6	Woodada Formation	749	2.79 ± 0.12
7	Kockatea Shale	780	2.09 ± 0.06
8	Carynginia Formation	1063	1.77 ± 0.36
9	High Cliff Sandstone	1072	4.40 ± 0.20
10	Holmwood Shale	1159	1.45 ± 0.15
11	Basement	1197	3.20 ± 0.40
12	Basement	1500	3.20 ± 0.40
13	Basement	2000	3.20 ± 0.40
14	Basement	2500	3.20 ± 0.40
15	Basement	3000	3.20 ± 0.40
16	Basement	3500	3.20 ± 0.40
17	Basement	4000	3.20 ± 0.40
18	Basement	4500	3.20 ± 0.40
19	Basement	5000	3.20 ± 0.40

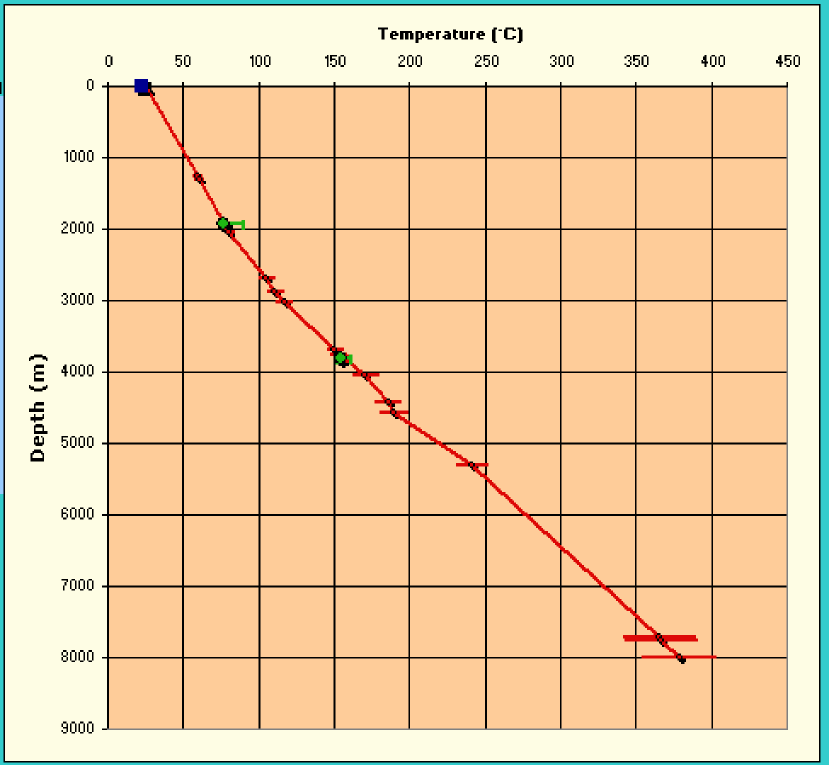


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1198.4	63.33	0	8.3888	BHT, ΔT is 11.5 hours

Number of layers	18	Up to 50	**Heat flow:**	91 ± 5.9 mW/m2
"Depth" to ground level	0	"KB height"		
Total Depth (m)	8000	From drilling datum		
Surface temp. (°C)	22.5	**Redback-1**		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		0	1.42 ± 0.14
2	superficial	8	1.42 ± 0.14
3	Yarragadee Formation	79	3.54 ± 0.30
4	Cadda Formation	1267	4.14 ± 0.52
5	Cattamarra Coal Measure	1319	3.73 ± 0.20
6	Eneabba Formation	2049	2.62 ± 0.44
7	Lesueur Formation	2690	3.56 ± 0.23
8	Woodada Formation	2875	2.79 ± 0.12
9	Kockatea Shale	3034	2.09 ± 0.06
10	Wagina Sandstone	3687	2.92 ± 0.56
11	Carynginia Formation	3750	1.77 ± 0.36
12	Carynginia Formation	3796	1.77 ± 0.36
13	Irwin River Coal Measures	4052	3.02 ± 0.50
14	High Cliff Sandstone	4429	4.40 ± 0.20
15	Holmwood Shale	4566	1.45 ± 0.15
16	Nangetty Formation	5298	2.75 ± 0.48
17	Wicherina Beds	7726	2.75 ± 0.48
18	Basement	7750	3.20 ± 0.40

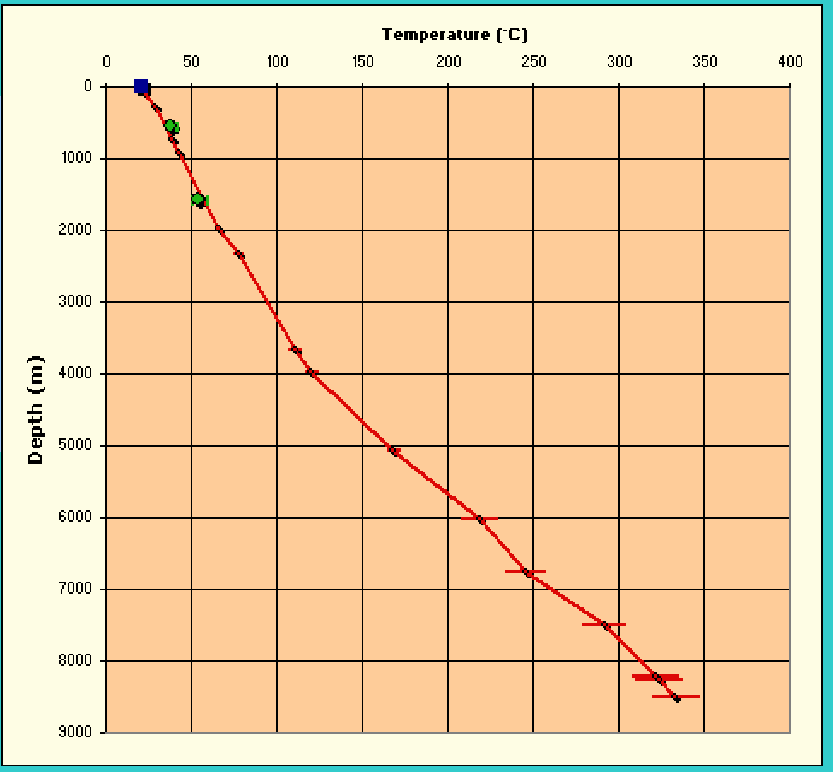


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
3800.85	155	3	6	horner corrected, depths averaged, two data points
1928	76.67	0	13.496	BHT, ΔT is 9.92 hours

Number of layers	16	Up to 50	Heat flow:	77 ± 3.4 mW/m2
"Depth" to ground level	5	"KB height"		
Total Depth (m)	8500	From drilling datum		
Surface temp. (°C)	20.625	Rockingham-1		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		5	2.56 ± 0.18
2	Leederville Formation	65	2.56 ± 0.18
3	Yarragadee Formation	287	3.54 ± 0.30
4	Cadda Formation	730	4.14 ± 0.52
5	Cattamarra Coal Measure	938	3.73 ± 0.20
6	Catamarra Coal Measures	1563	3.73 ± 0.20
7	Eneabba Formation	1972	2.62 ± 0.44
8	Leseuer Sandstone	2341	3.56 ± 0.23
9	Woodada Formation	3670	2.79 ± 0.12
10	Kockatea Shale	3965	2.09 ± 0.06
11	Carynginia Formation	5073	1.77 ± 0.36
12	Irwin River Coal Measures	6033	3.02 ± 0.50
13	Holmwood Shale	6772	1.45 ± 0.15
14	Nangetty Formation	7511	2.75 ± 0.48
15	Wicherina Beds	8213	2.75 ± 0.48
16	Basement	8250	3.20 ± 0.40

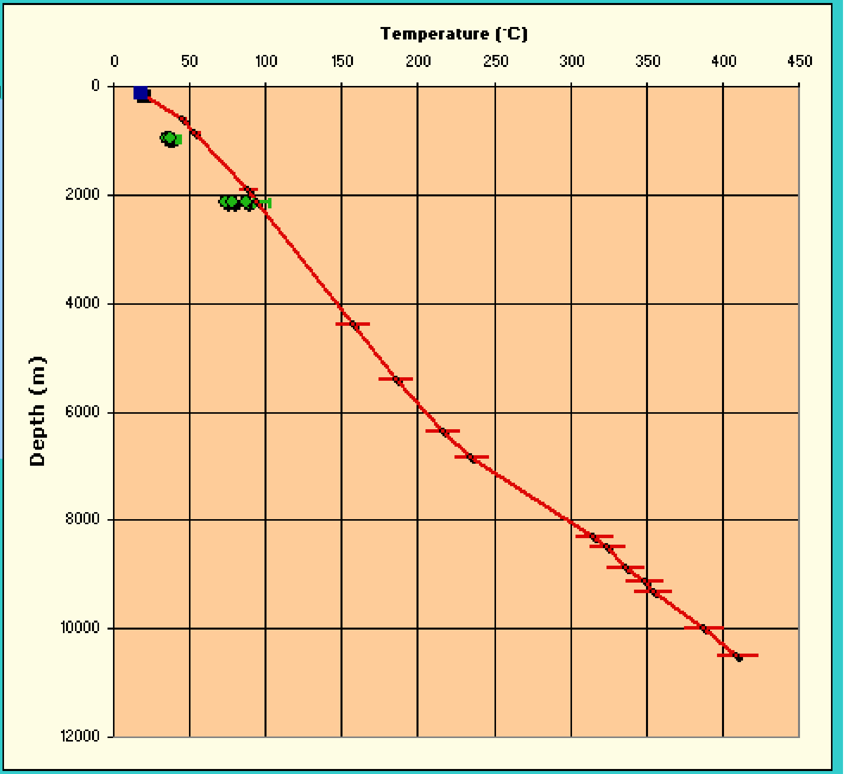


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1561.9	54.47	3	6	horner corrected, depths averaged, two data points
551.8	37.78	0	3.8626	BHT, ΔT is 3 hours

Number of layers	16	Up to 50	Heat flow 80 ± 2.2 mW/m2
"Depth" to ground level	133	"KB height"	
Total Depth (m)	10500	From drilling datum	
Surface temp. (°C)	18	Roe-1	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		133	1.42 ± 0.14
2	Unnamed/carbonate unit	135	1.42 ± 0.14
3	Leederville Formation	616	2.56 ± 0.18
4	Parmelia Group	872	2.58 ± 0.33
5	Yarragadee Formation	1899	3.54 ± 0.30
6	Yarragadee Formation	2134	3.54 ± 0.30
7	Cattamarra Coal Measure	4399	3.73 ± 0.20
8	Lesueur Sandstone	5399	3.56 ± 0.23
9	Sabina Sandstone	6378	2.79 ± 0.12
10	Willespie Formation	6845	1.96 ± 0.11
11	Redgate Coal Measures	8309	2.87 ± 0.09
12	Ashbrook Sandstone	8510	3.98 ± 0.24
13	Rosabrook Coal Measure	8872	2.87 ± 0.09
14	Woodynook Sandstone	9145	4.15 ± 0.28
15	Mosswood Formation	9312	2.75 ± 0.42
16	Basement	10000	3.20 ± 0.40

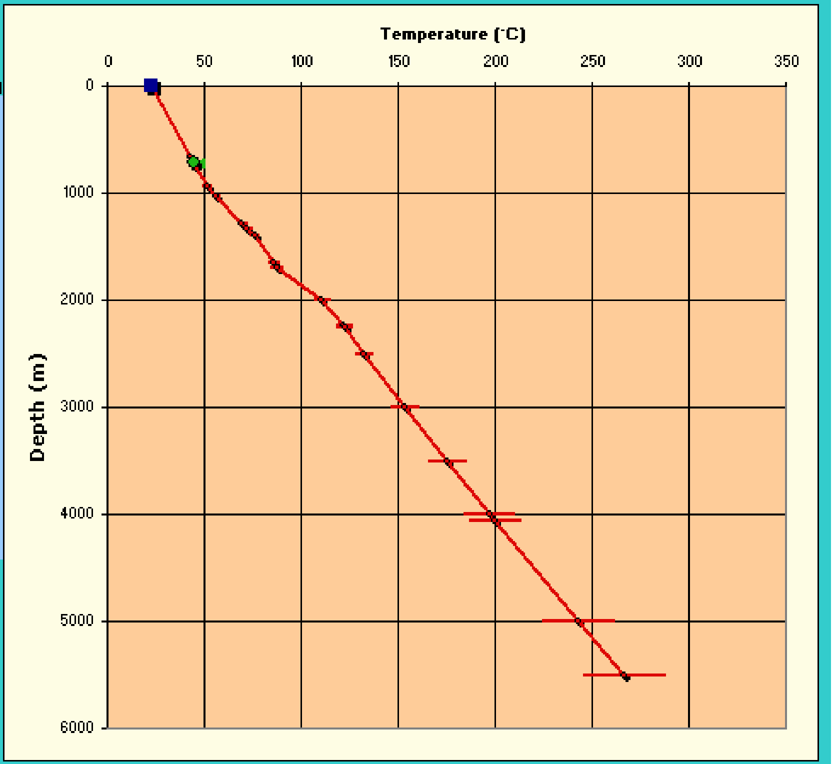


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
945.1848	35.56	0	6.6163	BHT, ΔT not recorded
945.1848	37.78	0	6.6163	BHT, ΔT not recorded
2127.8088	73.89	0	14.895	BHT, ΔT not recorded
2125.0656	77.78	0	14.875	BHT, ΔT not recorded
2129.9424	87.78	0	14.91	BHT, ΔT not recorded

Number of layers	21	Up to 50	Heat flow: 108 ± 3.9 mW/m2
"Depth" to ground level	4	"KB height"	
Total Depth (m)	5500	From drilling datum	
Surface temp. (°C)	22.5	Rosslyn-1	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		4	3.54 ± 0.30
2	Yarragadee Formation	4	3.54 ± 0.30
3	Champion Bay Group	669	4.14 ± 0.52
4	Newmarracarra Limestone	695	4.14 ± 0.52
5	Cattamarra Coal Measure	730	3.73 ± 0.20
6	Kockatea Shale	943	2.09 ± 0.06
7	Kockatea Shale	1030	2.09 ± 0.06
8	Dongara Sandstone	1280	2.92 ± 0.56
9	Caryngninia Formation	1340	1.77 ± 0.36
10	Irwin River Coal Measures	1400	3.02 ± 0.50
11	High Cliff Sandstone	1650	4.40 ± 0.20
12	Holmwood Shale	1700	1.45 ± 0.15
13	Nangetty Formation	2000	2.75 ± 0.48
14	Wicherina Beds	2246	2.75 ± 0.48
15	Basement	2250	3.20 ± 0.40
16	Basement	2500	3.20 ± 0.40
17	Basement	3000	3.20 ± 0.40
18	Basement	3500	3.20 ± 0.40
19	Basement	4000	3.20 ± 0.40
20	Basement	4065	3.20 ± 0.40
21	Basement	5000	3.20 ± 0.40

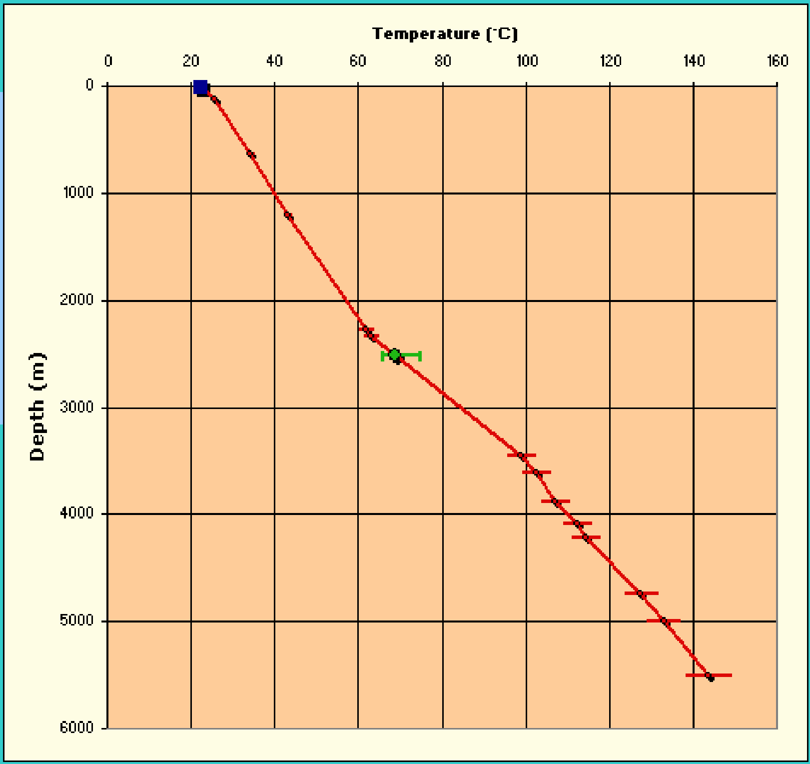


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
713	45	0	4.991	BHT, ΔT is 6.73 hours

Number of layers	15	Up to 50	Heat flow:	58 ± 1.6 mW/m2
"Depth" to ground level	10	"KB height"		
Total Depth (m)	5500	From drilling datum		
Surface temp. (°C)	22.5	Rutile-1		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		10	1.42 ± 0.14
2	Warnbro Group	20	2.22 ± 0.16
3	Yarragadee Formation	126	3.54 ± 0.30
4	Cattamarra Coal Measure	634	3.73 ± 0.20
5	Lesueur Sandstone	1205	3.56 ± 0.23
6	Sabina Sandstone	2280	2.79 ± 0.12
7	Willespie Formation	2337	1.96 ± 0.11
8	Willespie Formation	2514	1.96 ± 0.11
9	Redgate Coal Measures	3457	2.87 ± 0.09
10	Ashbrook Sandstone	3611	3.98 ± 0.24
11	Rosabrook Coal Measure	3888	2.87 ± 0.09
12	Woodynook Sandstone	4097	4.15 ± 0.28
13	Mosswood Formation	4225	2.75 ± 0.42
14	Basement	4750	3.20 ± 0.40
15	Basement	5000	3.20 ± 0.40

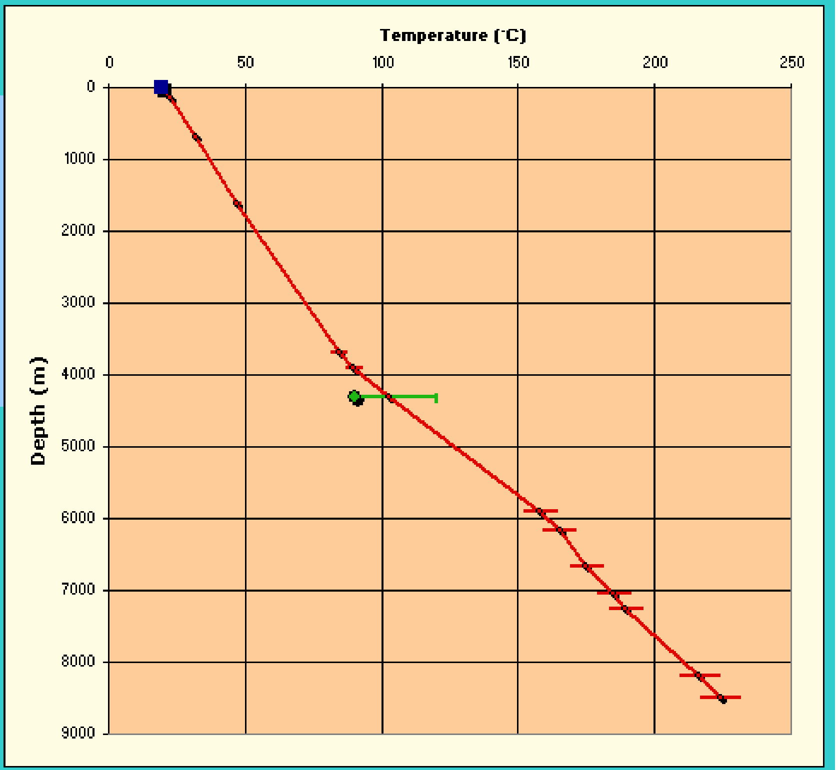


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
2511	68.82	3	6	horner corrected, depths averaged, corrected delta T from data

Number of layers	14	Up to 50	Heat flow:	59 ± 1.7 mW/m2
"Depth" to ground level	5	"KB height"		
Total Depth (m)	8500	From drilling datum		
Surface temp. (°C)	19.5	Sabina River-1		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		5	2.56 ± 0.18
2	Leederville Formation	61	2.56 ± 0.18
3	Yarragadee Formation	150	3.54 ± 0.30
4	Cattamarra Coal Measure	700	3.73 ± 0.20
5	Lesueur Sandstone	1625	3.56 ± 0.23
6	Sabina Sandstone	3688	2.79 ± 0.12
7	Willespie Formation	3914	1.96 ± 0.11
8	Willespie Formation	4309	1.96 ± 0.11
9	Redgate Coal Measures	5903	2.87 ± 0.09
10	Ashbrook Sandstone	6177	3.98 ± 0.24
11	Rosabrook Coal Measure	6669	2.87 ± 0.09
12	Woodynook Sandstone	7041	4.15 ± 0.28
13	Mosswood Formation	7268	2.75 ± 0.42
14	Basement	8200	3.20 ± 0.40

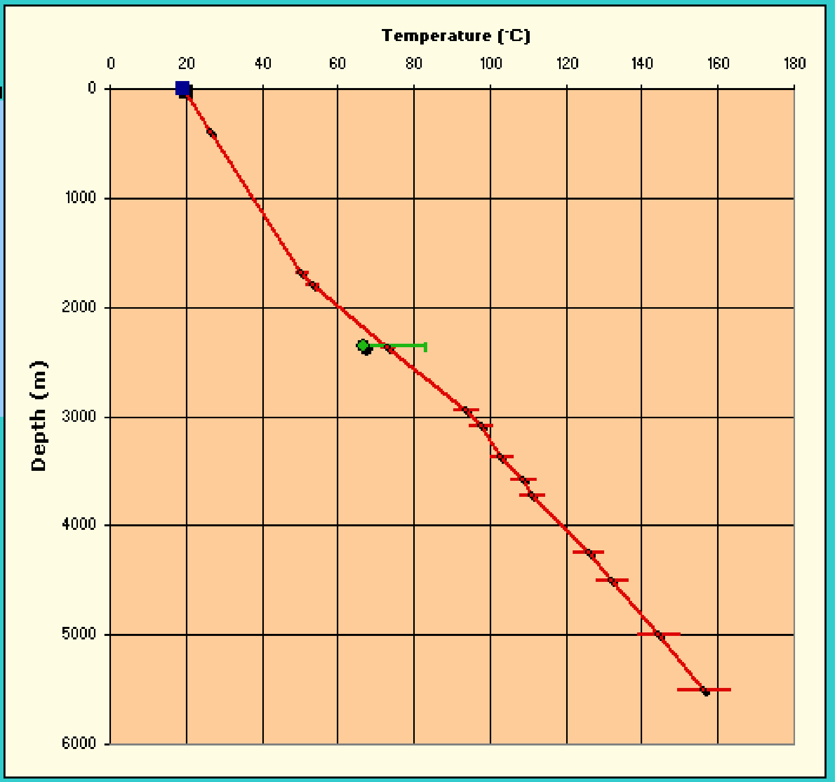


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
4306	90	0	30.142	BHT, ΔT is 9.5 hours

Number of layers	14	Up to 50	Heat flow 65 ± 1.9 mW/m2
"Depth" to ground level	7	"KB height"	
Total Depth (m)	5500	From drilling datum	
Surface temp. (°C)	19.375	Scott River-1	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		7	1.42 ± 0.14
2	Cattamarra Coal Measure	10	3.73 ± 0.20
3	Lesueur Sandstone	403	3.56 ± 0.23
4	Sabina Sandstone	1688	2.79 ± 0.12
5	Willespie Formation	1801	1.96 ± 0.11
6	Willespie Formation	2370	1.96 ± 0.11
7	Redgate Coal Measures	2938	2.87 ± 0.09
8	Ashbrook Sandstone	3095	3.98 ± 0.24
9	Rosabrook Coal Measure	3376	2.87 ± 0.09
10	Woodynook Sandstone	3588	4.15 ± 0.28
11	Mosswood Formation	3718	2.75 ± 0.42
12	Basement	4250	3.20 ± 0.40
13	Basement	4500	3.20 ± 0.40
14	Basement	5000	3.20 ± 0.40

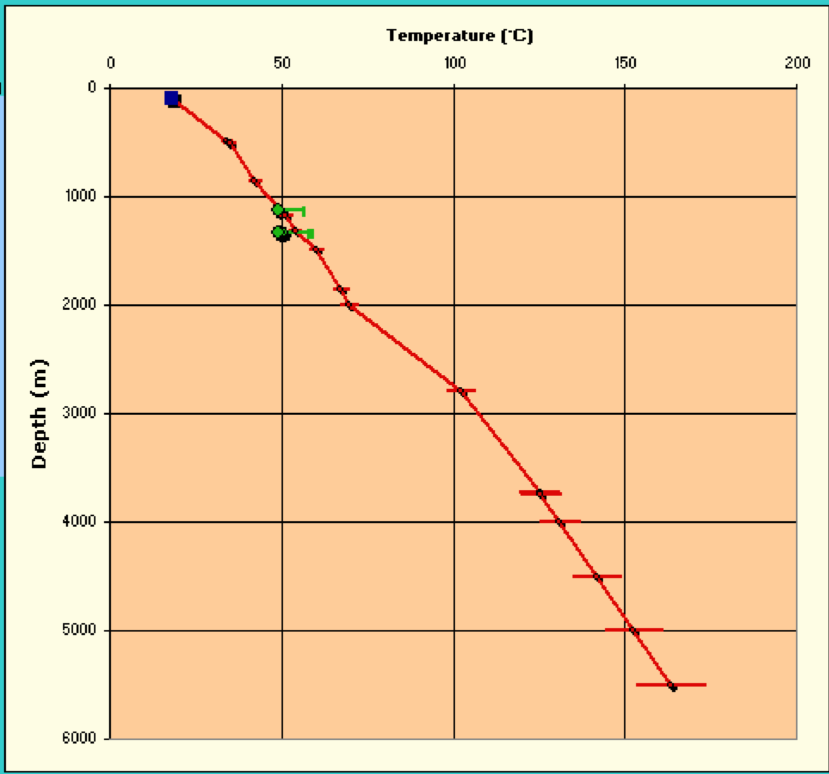


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
2361	66.66	0	16.527	BHT, ΔT is 14.75 hours

Number of layers	17	Up to 50	**Heat flow:** 57 ± 2.4 mW/m2
"Depth" to ground level	93	"KB height"	
Total Depth (m)	5500	From drilling datum	
Surface temp. (°C)	18	**South Turtle Dove-1B**	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		93	1.42 ± 0.14
2	Tertiary calcarenite	93	1.42 ± 0.14
3	Cretaceous calcarenite	495	1.13 ± 0.08
4	Albian calcarenite	508	1.13 ± 0.08
5	Woodada Formation	513	2.79 ± 0.12
6	Kockatea Shale	857	2.09 ± 0.06
7	Dongara Sandstone	1175	2.92 ± 0.56
8	Carygnginia Formation	1312	1.77 ± 0.36
9	Irwin River Coal Measu	1496	3.02 ± 0.50
10	High Cliff Sandstone	1850	4.40 ± 0.20
11	Holmwood Shale	2000	1.45 ± 0.15
12	Nangetty Formation	2800	2.75 ± 0.48
13	Wicherina Beds	3735	2.75 ± 0.48
14	Basement	3750	3.20 ± 0.40
15	Basement	4000	3.20 ± 0.40
16	Basement	4500	3.20 ± 0.40
17	Basement	5000	3.20 ± 0.40

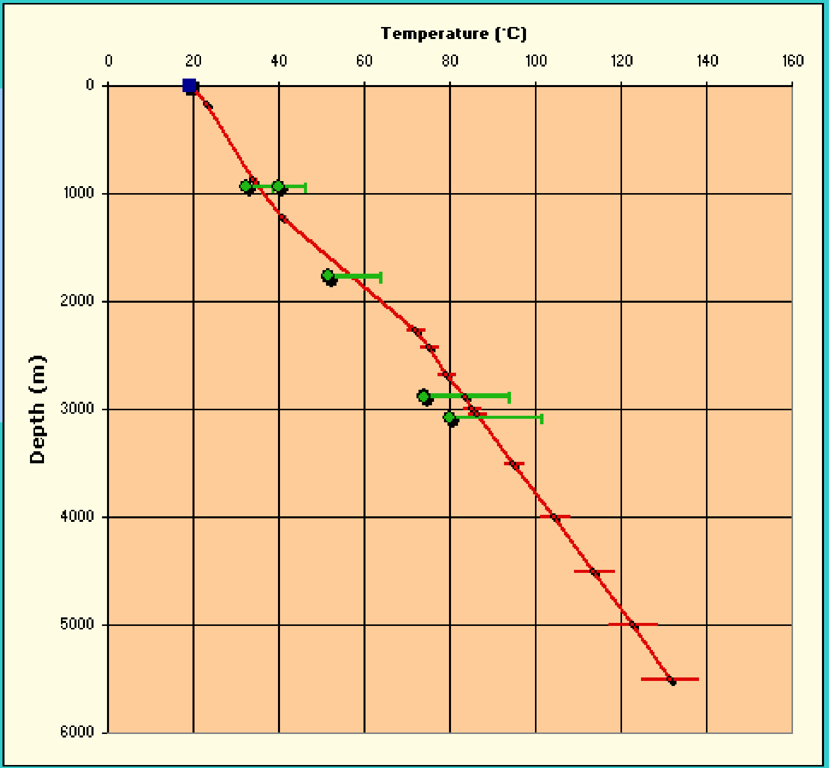


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1126	49	0	7.882	BHT, ΔT not recorded
1330	50	0	9.31	BHT, ΔT not recorded
1326	49	0	9.282	BHT, ΔT not recorded

Number of layers	15	Up to 50	Heat flow:	55 ± 1.6 mW/m2
"Depth" to ground level	0	"KB height"		
Total Depth (m)	5500	From drilling datum		
Surface temp. (°C)	19.375	Sue-1		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		0	1.42 ± 0.14
2	Leederville Formation	6	2.56 ± 0.18
3	Lesueur Sandstone	169	3.56 ± 0.23
4	Sabina Sandstone	878	2.79 ± 0.12
5	Willespie Formation	1216	1.96 ± 0.11
6	Redgate Coal Measures	2276	2.87 ± 0.09
7	Ashbrook Sandstone	2422	3.98 ± 0.24
8	Rosabrook Coal Measur	2684	2.87 ± 0.09
9	Woodynook Sandstone	2882	4.15 ± 0.28
10	Mosswood Formation	3003	2.75 ± 0.42
11	Basement	3054	3.20 ± 0.40
12	Basement	3500	3.20 ± 0.40
13	Basement	4000	3.20 ± 0.40
14	Basement	4500	3.20 ± 0.40
15	Basement	5000	3.20 ± 0.40

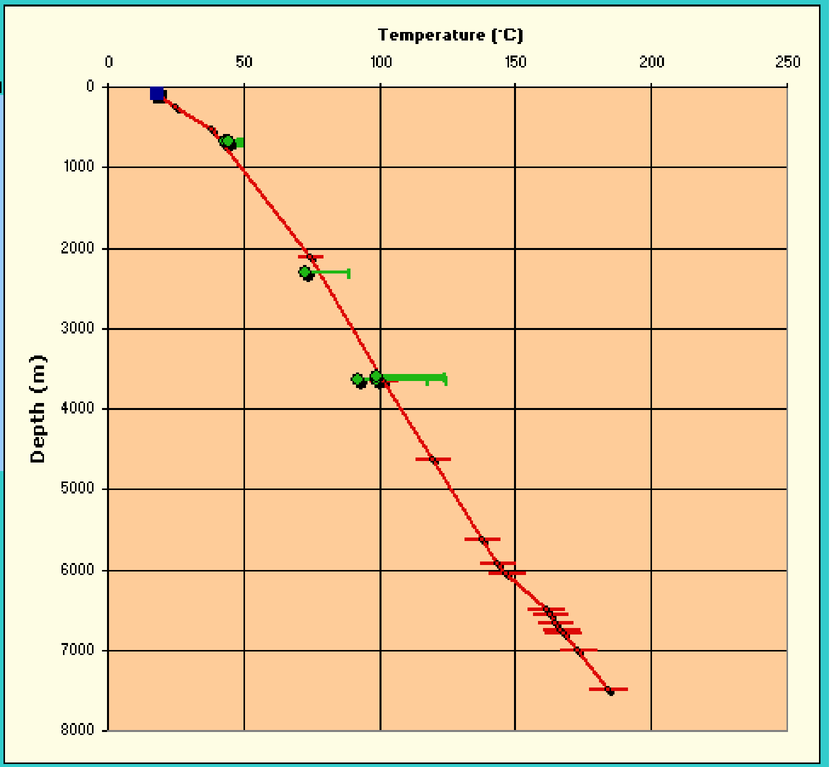


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
935.1264	32.22	0	6.5459	BHT, ΔT not recorded
931.4688	32.22	0	6.5203	BHT, ΔT not recorded
930.8592	40	0	6.516	BHT, ΔT not recorded
934.212	40	0	6.5395	BHT, ΔT not recorded
1771.1928	51.67	0	12.398	BHT, ΔT not recorded
1767.5352	51.67	0	12.373	BHT, ΔT not recorded
1768.7544	51.67	0	12.381	BHT, ΔT not recorded
2877.312	73.89	0	20.141	BHT, ΔT not recorded
2877.0072	73.89	0	20.139	BHT, ΔT not recorded
2891.6376	73.89	0	20.241	BHT, ΔT not recorded
2888.2848	73.89	0	20.218	BHT, ΔT not recorded
3077.2608	80	0	21.541	BHT, ΔT not recorded
3074.5176	80	0	21.522	BHT, ΔT not recorded
3077.2608	80	0	21.541	BHT, ΔT not recorded
3075.7368	80	0	21.53	BHT, ΔT not recorded

Number of layers	17	Up to 50	Heat flow:	55 ± 1.8 mW/m2
"Depth" to ground level	76	"KB height"		
Total Depth (m)	7500	From driling datum		
Surface temp. (°C)	18	Sugarloaf-1		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		76	1.42 ± 0.14
2	Unnamed carbonates	76	1.42 ± 0.14
3	Osborne Formation	253	1.13 ± 0.08
4	Leederville Formation	533	2.56 ± 0.18
5	Parmelia Group	710	2.58 ± 0.33
6	Yarragadee Formation	2125	3.54 ± 0.30
7	Yarragadee Formation	3658	3.54 ± 0.30
8	Cattamarra Coal Measure	4625	3.73 ± 0.20
9	Lesueur Sandstone	5625	3.56 ± 0.23
10	Sabina Sandstone	5918	2.79 ± 0.12
11	Willespie Formation	6058	1.96 ± 0.11
12	Redgate Coal Measures	6495	2.87 ± 0.09
13	Ashbrook Sandstone	6556	3.98 ± 0.24
14	Rosabrook Coal Measure	6664	2.87 ± 0.09
15	Woodynook Sandstone	6746	4.15 ± 0.28
16	Mosswood Formation	6796	2.75 ± 0.42
17	Basement	7000	3.20 ± 0.40

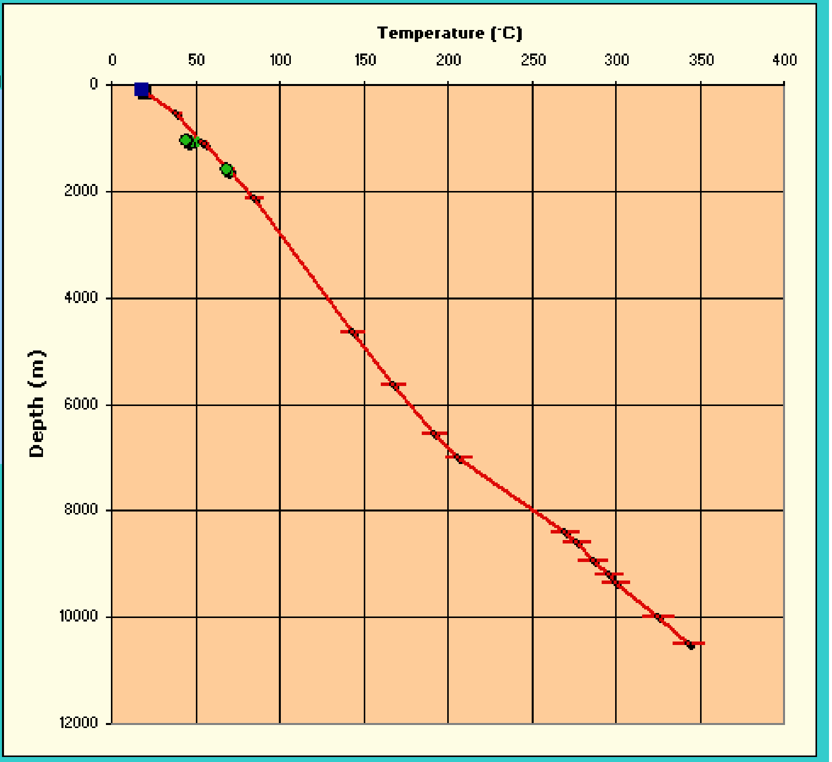


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
681.8376	43.33	0	4.7729	BHT, ΔT not recorded
680.3136	44.44	0	4.7622	BHT, ΔT not recorded
2309.7744	72.78	0	16.168	BHT, ΔT not recorded
2306.1168	72.78	0	16.143	BHT, ΔT not recorded
3649.6752	92.22	0	25.548	BHT, ΔT not recorded
3646.0176	98.89	0	25.522	BHT, ΔT not recorded
3589.9344	98.89	0	25.13	BHT, ΔT not recorded
3649.98	92.22	0	25.55	BHT, ΔT not recorded

Number of layers	17	Up to 50	Heat flow:	69 ± 1.8 mW/m2
"Depth" to ground level	107	"KB height"		
Total Depth (m)	10500	From drilling datum		
Surface temp. (°C)	18	Tuart-1		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		107	1.42 ± 0.14
2	Tertiary	107	1.42 ± 0.14
3	Leederville Formation	535	2.56 ± 0.18
4	South Perth Shale	1069	1.71 ± 0.14
5	Parmelia Group	1107	2.58 ± 0.33
6	Parmelia Group	1600	2.58 ± 0.33
7	Yarragadee Formation	2134	3.54 ± 0.30
8	Cattamarra Coal Measure	4634	3.73 ± 0.20
9	Lesueur Sandstone	5634	3.56 ± 0.23
10	Sabina Sandstone	6563	2.79 ± 0.12
11	Willespie Formation	7006	1.96 ± 0.11
12	Redgate Coal Measures	8395	2.87 ± 0.09
13	Ashbrook Sandstone	8586	3.98 ± 0.24
14	Rosabrook Coal Measure	8929	2.87 ± 0.09
15	Woodynook Sandstone	9189	4.15 ± 0.28
16	Mosswood Formation	9348	2.75 ± 0.42
17	Basement	10000	3.20 ± 0.40

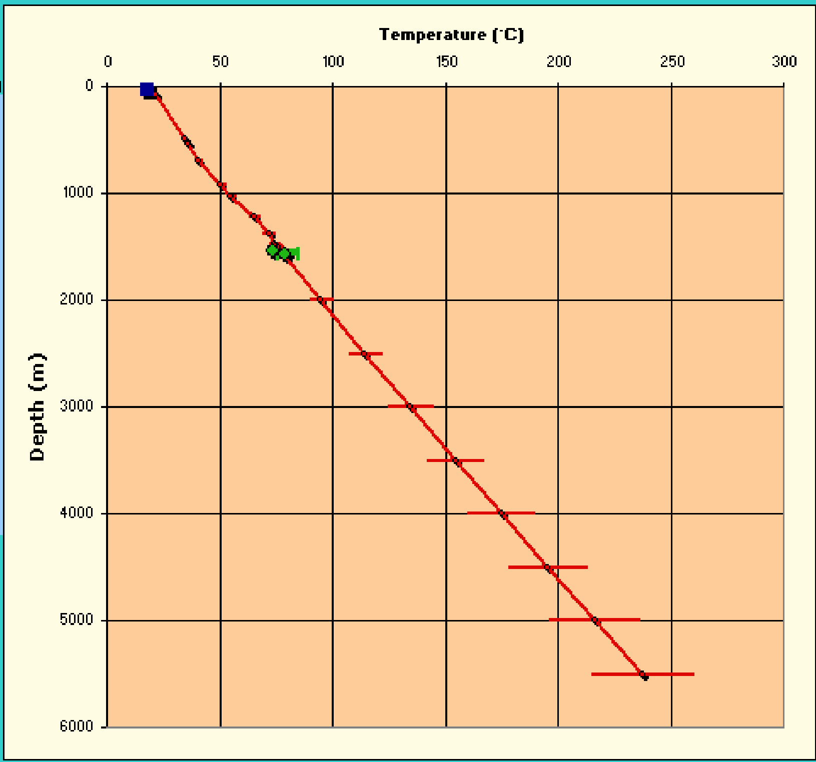


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1589.9	68.76	1	3	horner corrected, depths averaged
1065.6	45.2	1	3	horner corrected, depths averaged
1064	44	0	7.448	BHT, ΔT is 4.75 hours

Number of layers	20	Up to 50	**Heat flow:** 110 ± 3.8 mW/m2
"Depth" to ground level	32	"KB height"	
Total Depth (m)	5500	From drilling datum	
Surface temp. (°C)	18	**Twin Lions-1**	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		32	1.42 ± 0.14
2	tertiary to recent	39	1.42 ± 0.14
3	Yarragadee Formation	80	3.54 ± 0.30
4	Cadda Formation	488	4.14 ± 0.52
5	Cattamarra Coal Measure	545	3.73 ± 0.20
6	Eneabba Formation	703	2.62 ± 0.44
7	Woodada Formation	926	2.79 ± 0.12
8	Kockatea Shale	1035	2.09 ± 0.06
9	Irwin River Coal Measures	1219	3.02 ± 0.50
10	High Cliff Sandstone	1385	4.40 ± 0.20
11	Holmwood Shale	1478	1.45 ± 0.15
12	Basement	1491	3.20 ± 0.40
13	Basement	1500	3.20 ± 0.40
14	Basement	2000	3.20 ± 0.40
15	Basement	2500	3.20 ± 0.40
16	Basement	3000	3.20 ± 0.40
17	Basement	3500	3.20 ± 0.40
18	Basement	4000	3.20 ± 0.40
19	Basement	4500	3.20 ± 0.40
20	Basement	5000	3.20 ± 0.40

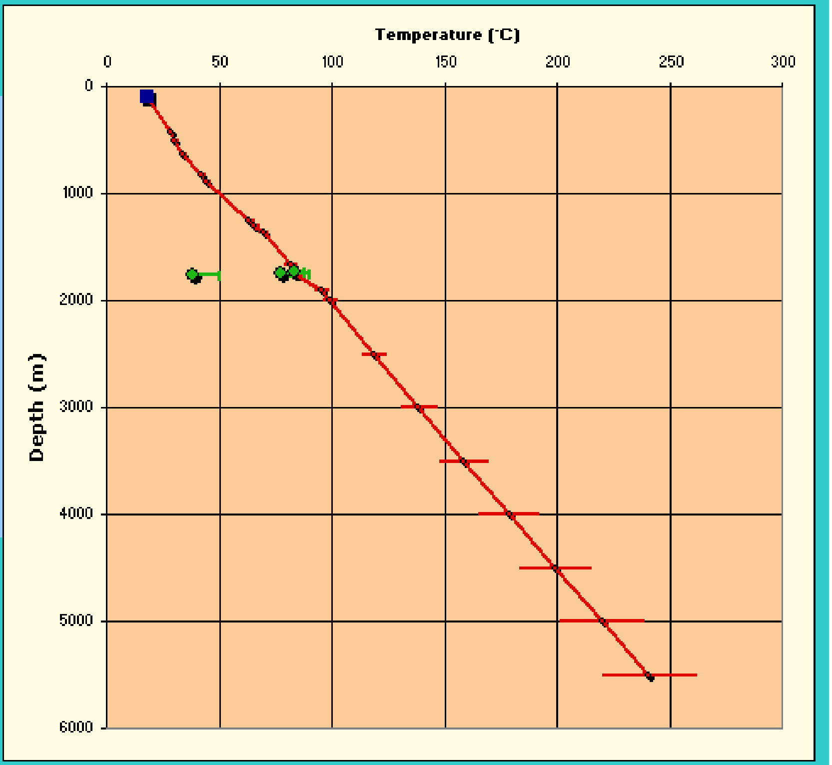


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1568.5	79.31	3	6	horner corrected, depths averaged
1545	74	0	10.815	BHT, ΔT is 1.58 hours
1545	74	0	10.815	BHT, ΔT is 1.58 hours

Number of layers	20	Up to 50	**Heat flow:** 107 ± 3.6 mW/m2
"Depth" to ground level	93	"KB height"	
Total Depth (m)	5500	From drilling datum	
Surface temp. (°C)	18	**Vindara-1**	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	tertiary to recent	93	1.42 ± 0.14
2	Yarragadee Formation	94	3.54 ± 0.30
3	Cadda Formation	433	4.14 ± 0.52
4	Cattamarra Coal Measure	513	3.73 ± 0.20
5	Eneabba Formation	640	2.62 ± 0.44
6	Woodada Formation	826	2.79 ± 0.12
7	Kockatea Shale	894	2.09 ± 0.06
8	Dongarra Sandstone	1248	2.92 ± 0.56
9	Carynginia Formation	1303	1.77 ± 0.36
10	Irwin River Coal Measures	1368	3.02 ± 0.50
11	High Cliff Sandstone	1673	4.40 ± 0.20
12	Holmwood Shale	1754	1.45 ± 0.15
13	Basement	1905	3.20 ± 0.40
14	Basement	2000	3.20 ± 0.40
15	Basement	2500	3.20 ± 0.40
16	Basement	3000	3.20 ± 0.40
17	Basement	3500	3.20 ± 0.40
18	Basement	4000	3.20 ± 0.40
19	Basement	4500	3.20 ± 0.40
20	Basement	5000	3.20 ± 0.40



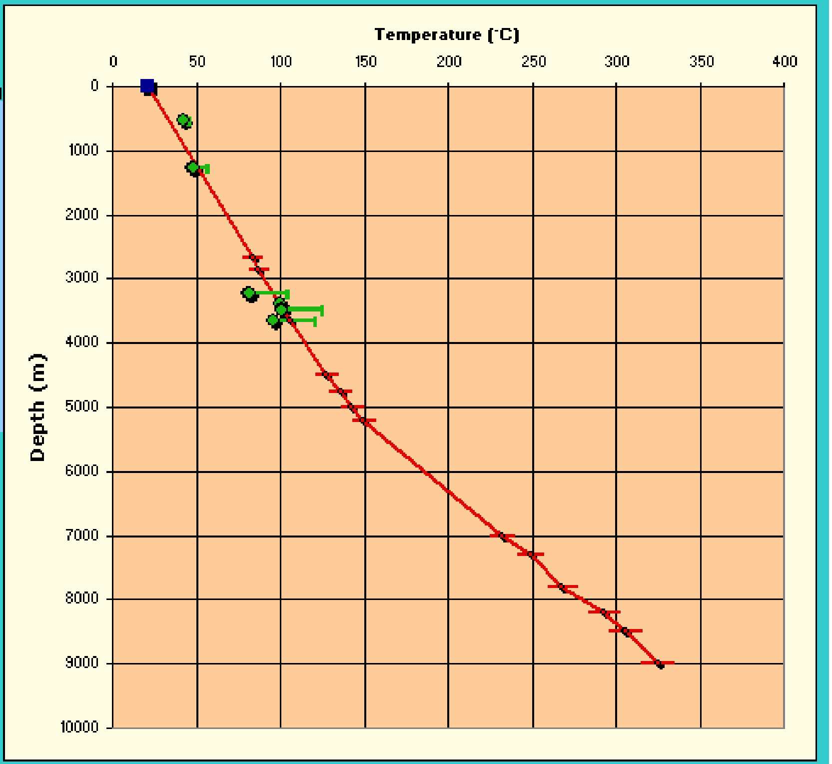
Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1729.1	83.83	2	4	horner corrected, depths averaged
1750	77.8	0	12.25	BHT, ΔT not recorded
1755	38	0	12.285	BHT, ΔT not recorded

Number of layers	15	Up to 50	
"Depth" to ground level	5	"KB height"	
Total Depth (m)	9000	From driling datum	
Surface temp. (°C)	21.5	Valgering-1	

Heat flow: 77 ± 2.2 mW/m2

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		5	3.54 ± 0.30
2	Yarragadee Formation	5	3.54 ± 0.30
3	Cadda Formation	2685	4.14 ± 0.52
4	Cattamarra Coal Measure	2865	3.73 ± 0.20
5	Cattamarra Coal Measure	3643	3.73 ± 0.20
6	Eneabba Formation	4500	2.62 ± 0.44
7	Lesueur Sandstone	4750	3.56 ± 0.23
8	Woodada Formation	5000	2.79 ± 0.12
9	Kockatea Shale	5200	2.09 ± 0.06
10	Caryngninia Formation	7000	1.77 ± 0.36
11	Irwin River Coal Measures	7300	3.02 ± 0.50
12	Holmwood Shale	7800	1.45 ± 0.15
13	Nangetty Formation	8200	2.75 ± 0.48
14	Wicherina Beds	8490	2.75 ± 0.48
15	Basement	8500	3.20 ± 0.40

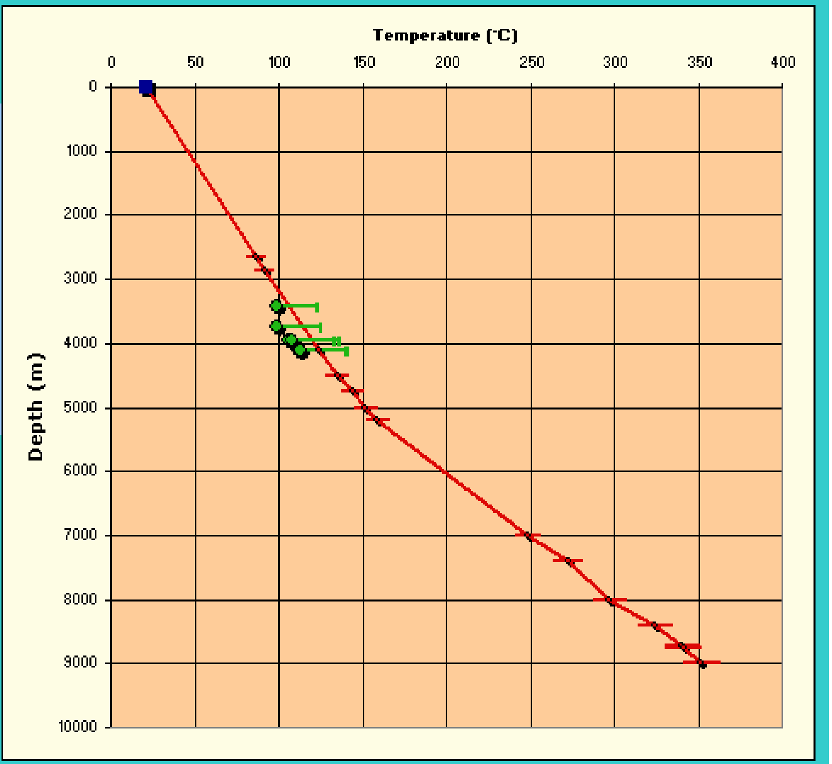


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
3396	100	0	2	DST estimated; "Open hole test. 1/2" choke. Open hole. Gas flow 13.5mmcfd.
522.1224	42.22	0	3.6549	BHT, ΔT not recorded
520.6	42.78	0	3.6442	BHT, ΔT not recorded
1275.2832	47.78	0	8.927	BHT, ΔT not recorded
1273.1496	48.89	0	8.912	BHT, ΔT not recorded
1275.2832	48.89	0	8.927	BHT, ΔT not recorded
1277.7216	48.89	0	8.9441	BHT, ΔT not recorded
3239.4144	81.11	0	22.676	BHT, ΔT not recorded
3238.8048	82.22	0	22.672	BHT, ΔT not recorded
3465.576	101	0	24.259	BHT, ΔT not recorded
3484.7784	100.56	0	24.393	BHT, ΔT not recorded
3484.1688	100.56	0	24.389	BHT, ΔT not recorded
3642.36	95.56	0	25.497	BHT, ΔT not recorded
3641.7504	95.56	0	25.492	BHT, ΔT not recorded

Number of layers	15	Up to 50	**Heat flow:** 82 ± 2.5 mW/m2
"Depth" to ground level	5	"KB height"	
Total Depth (m)	9000	From drilling datum	
Surface temp. (°C)	21.5	**Walyering-1**	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		5	3.54 ± 0.30
2	Yarragadee Formation	5	3.54 ± 0.30
3	Cadda Formation	2647	4.14 ± 0.52
4	Cattamarra Coal Measure	2864	3.73 ± 0.20
5	Cattamarra Coal Measure	4115	3.73 ± 0.20
6	Eneabba Formation	4500	2.62 ± 0.44
7	Lesueur Sandstone	4750	3.56 ± 0.23
8	Woodada Formation	5000	2.79 ± 0.12
9	Kockatea Shale	5200	2.09 ± 0.06
10	Carygninia Formation	7000	1.77 ± 0.36
11	Irwin River Coal Measures	7400	3.02 ± 0.50
12	Holmwood Shale	8000	1.45 ± 0.15
13	Nangetty Formation	8400	2.75 ± 0.48
14	Wicherina Beds	8740	2.75 ± 0.48
15	Basement	8750	3.20 ± 0.40

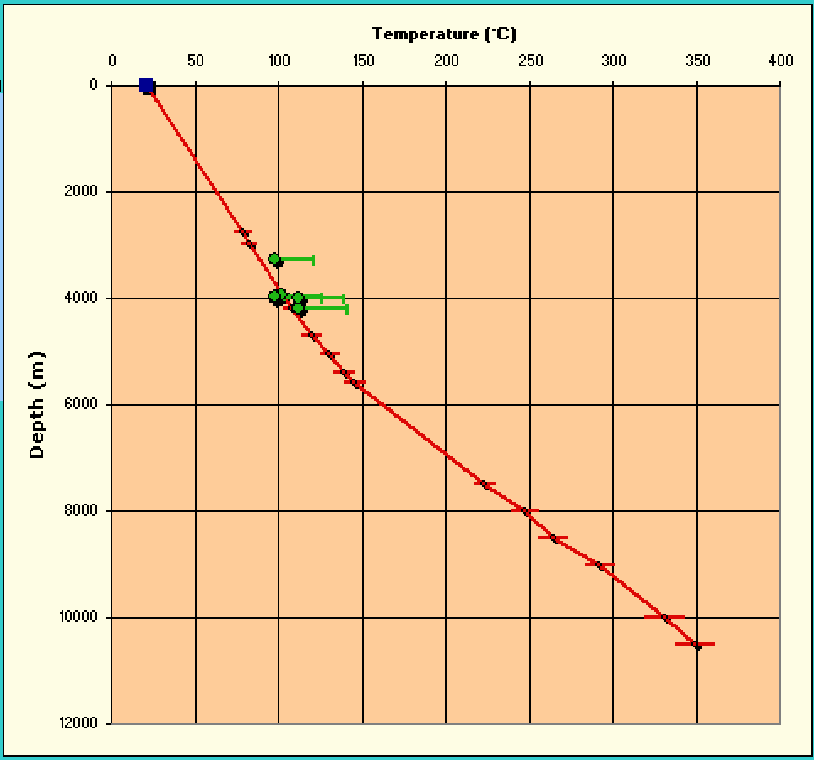


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
3739.896	98.89	0	26.179	BHT, ΔT not recorded
3739.9	98.89	0	26.179	BHT, ΔT not recorded
3431.74	98.89	0	24.022	BHT, ΔT not recorded
3957.5232	105.56	0	27.703	BHT, ΔT not recorded
3953.256	108.33	0	27.673	BHT, ΔT not recorded
4113.5808	111.67	0	28.795	BHT, ΔT not recorded
4113.5808	111.67	0	28.795	BHT, ΔT not recorded
4113.5808	112.78	0	28.795	BHT, ΔT not recorded

Number of layers	14	Up to 50	Heat flow: 69 ± 2.4 mW/m2
"Depth" to ground level	0	"KB height"	
Total Depth (m)	10500	From drilling datum	
Surface temp. (°C)	21.5	Walyering-3	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	Yarragadee Formation	0	3.54 ± 0.30
2	Cadda Formation	2765	4.14 ± 0.52
3	Cattamarra Coal Measure	2975	3.73 ± 0.20
4	Cattamarra Coal Measure	4187	3.73 ± 0.20
5	Eneabba Formation	4700	2.62 ± 0.44
6	Lesueur Sandstone	5050	3.56 ± 0.23
7	Woodada Formation	5400	2.79 ± 0.12
8	Kockatea Shale	5600	2.09 ± 0.06
9	Carygninia Formation	7500	1.77 ± 0.36
10	Irwin River Coal Measures	8000	3.02 ± 0.50
11	Holmwood Shale	8500	1.45 ± 0.15
12	Nangetty Formation	9000	2.75 ± 0.48
13	Wicherina Beds	9990	2.75 ± 0.48
14	Basement	10000	3.20 ± 0.40

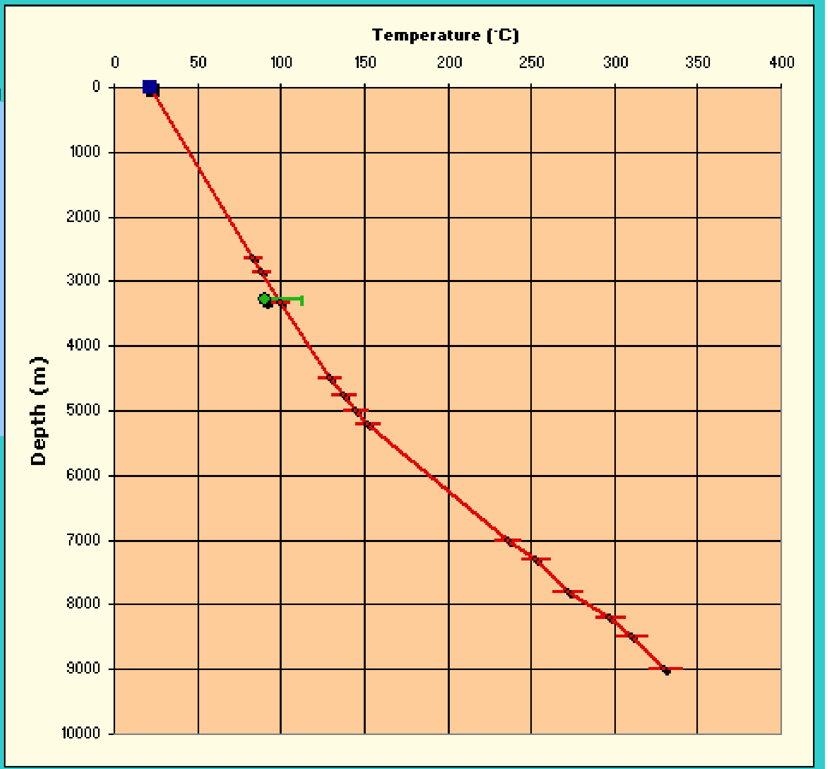


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
3939	102.2	0	2	DST actual; 'Cased hole test. Weak gas flare. Gas to surface after 22 mins of main flow period.
3278.7336	97.78	0	22.951	BHT, ΔT not recorded
3276.6	98.33	0	22.936	BHT, ΔT not recorded
3989.22	98.33	0	27.925	BHT, ΔT not recorded
3962.4	98.33	0	27.737	BHT, ΔT not recorded
3976.116	98.33	0	27.833	BHT, ΔT not recorded
4184.2944	111.67	0	29.29	BHT, ΔT not recorded
4183.6848	111.67	0	29.286	BHT, ΔT not recorded
3986.1744	111.67	0	27.903	BHT, ΔT not recorded

Number of layers	15	Up to 50	Heat flow:	78 ± 2.2 mW/m2
"Depth" to ground level	0	"KB height"		
Total Depth (m)	9000	From driling datum		
Surface temp. (°C)	21.5	Walgering-4		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		0	1.42 ± 0.14
2	Yarragadee Formation	9	3.54 ± 0.30
3	Cadda Formation	2635	4.14 ± 0.52
4	Cattamarra Coal Measure	2850	3.73 ± 0.20
5	Cattamarra Coal Measure	3334	3.73 ± 0.20
6	Eneabba Formation	4500	2.62 ± 0.44
7	Leseuer Sandstone	4750	3.56 ± 0.23
8	Woodada Formation	5000	2.79 ± 0.12
9	Kockatea Shale	5200	2.09 ± 0.06
10	Caryngninia Formation	7000	1.77 ± 0.36
11	Irwin River Coal Measures	7300	3.02 ± 0.50
12	Holmwood Shale	7800	1.45 ± 0.15
13	Nangetty Formation	8200	2.75 ± 0.48
14	Wicherina Beds	8490	2.75 ± 0.48
15	Basement	8500	3.20 ± 0.40

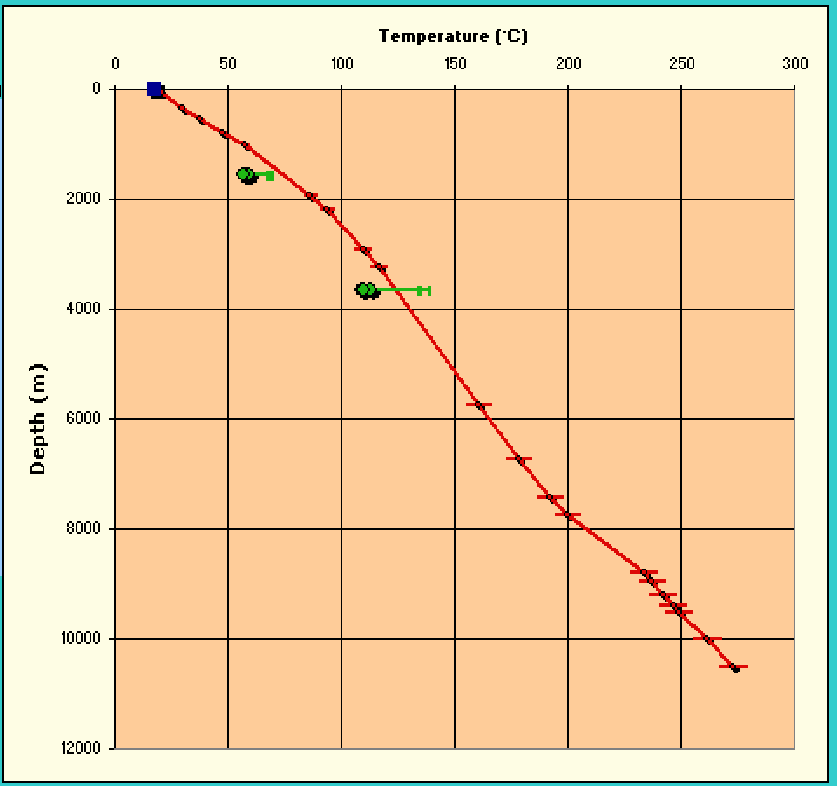


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
3283.7	90	0	22.986	BHT, ΔT is 14.98 hours
3272	90	0	22.904	BHT, ΔT is 15 hours

Number of layers	21	Up to 50	Heat flow 50 ± 1.2 mW/m2
"Depth" to ground level	0	"KB height"	
Total Depth (m)	10500	From drilling datum	
Surface temp. (°C)	18	Warnbro-1	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		0	1.42 ± 0.14
2	Tertiary	72	1.42 ± 0.14
3	Kings Park Formation	336	1.42 ± 0.14
4	Coolyena Group	552	1.13 ± 0.08
5	Osborne Formation	792	1.13 ± 0.08
6	South Perth Shale	1003	1.71 ± 0.14
7	Gage Sandstone	1945	1.93 ± 0.04
8	Jervoise Sandstone	2204	2.58 ± 0.33
9	Otorowiri Formation	2932	2.58 ± 0.33
10	Otorowiri Formation	3231	2.58 ± 0.33
11	Yarragadee Formation	3232	3.54 ± 0.30
12	Cattamarra Coal Measure	5732	3.73 ± 0.20
13	Lesueur Sandstone	6732	3.56 ± 0.23
14	Sabina Sandstone	7428	2.79 ± 0.12
15	Willespie Formation	7760	1.96 ± 0.11
16	Redgate Coal Measures	8800	2.87 ± 0.09
17	Ashbrook Sandstone	8943	3.98 ± 0.24
18	Rosabrook Coal Measure	9200	2.87 ± 0.09
19	Woodynook Sandstone	9394	4.15 ± 0.28
20	Mosswood Formation	9513	2.75 ± 0.42
21	Basement	10000	3.20 ± 0.40

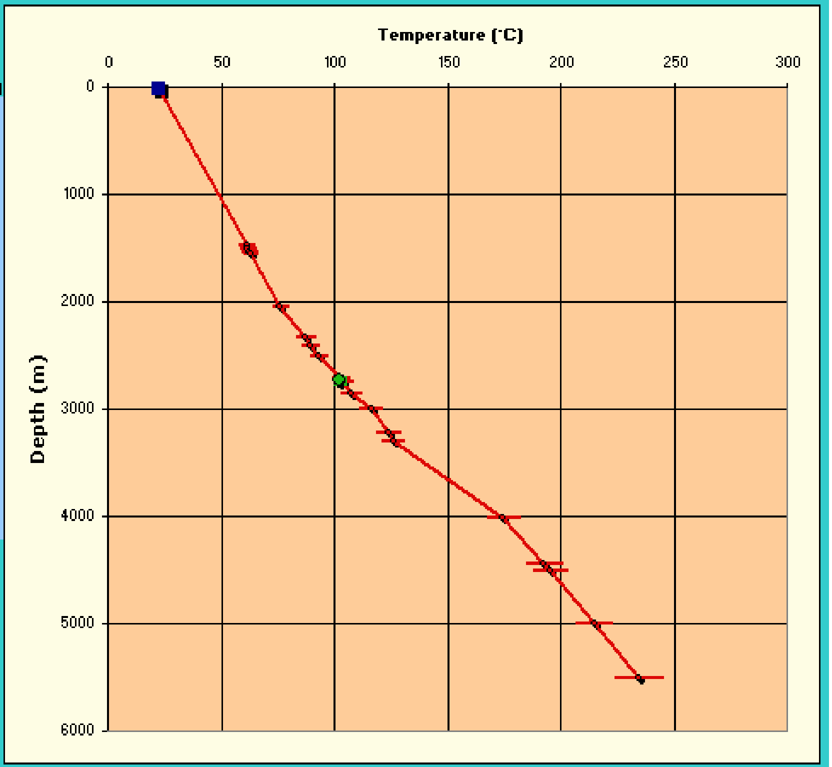


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1549.908	56.67	0	10.849	BHT, ΔT not recorded
1546.5552	57.77	0	10.826	BHT, ΔT not recorded
1553.5656	58.89	0	10.875	BHT, ΔT not recorded
1548.9936	56.67	0	10.843	BHT, ΔT not recorded
3660.3432	110	0	25.622	BHT, ΔT not recorded
3658.2096	108.89	0	25.607	BHT, ΔT not recorded
3660.648	113.33	0	25.625	BHT, ΔT not recorded
3660.34	110	0	25.622	BHT, ΔT not recorded

Number of layers	20	Up to 50	Heat flow:	90	± 3.5 mW/m2
"Depth" to ground level	8	"KB height"			
Total Depth (m)	5500	From drilling datum			
Surface temp. (°C)	22.5	Wayvanerry-1			

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		8	3.54 ± 0.30
2	Yarragadee Formation	8	3.54 ± 0.30
3	Cadda Formation	1477	4.14 ± 0.52
4	Newmarracarra Limestone	1500	4.14 ± 0.52
5	Colalura Sandstone	1533	4.14 ± 0.52
6	Cattamarra Coal Measure	1556	3.73 ± 0.20
7	Eneabba Formation	2040	2.62 ± 0.44
8	Lesueur Sandstone	2341	3.56 ± 0.23
9	Woodada Formation	2410	2.79 ± 0.12
10	Kockatea Shale	2509	2.09 ± 0.06
11	Dongara Sandstone	2713	2.92 ± 0.56
12	Dongara Sandstone	2748	2.92 ± 0.56
13	Carynginia Formation	2850	1.77 ± 0.36
14	Irwin River Coal Measures	3000	3.02 ± 0.50
15	High Cliff Sandstone	3220	4.40 ± 0.20
16	Holmwood Shale	3300	1.45 ± 0.15
17	Nangetty Formation	4020	2.75 ± 0.48
18	Wicherina Beds	4440	2.75 ± 0.48
19	Basement	4500	3.20 ± 0.40
20	Basement	5000	3.20 ± 0.40

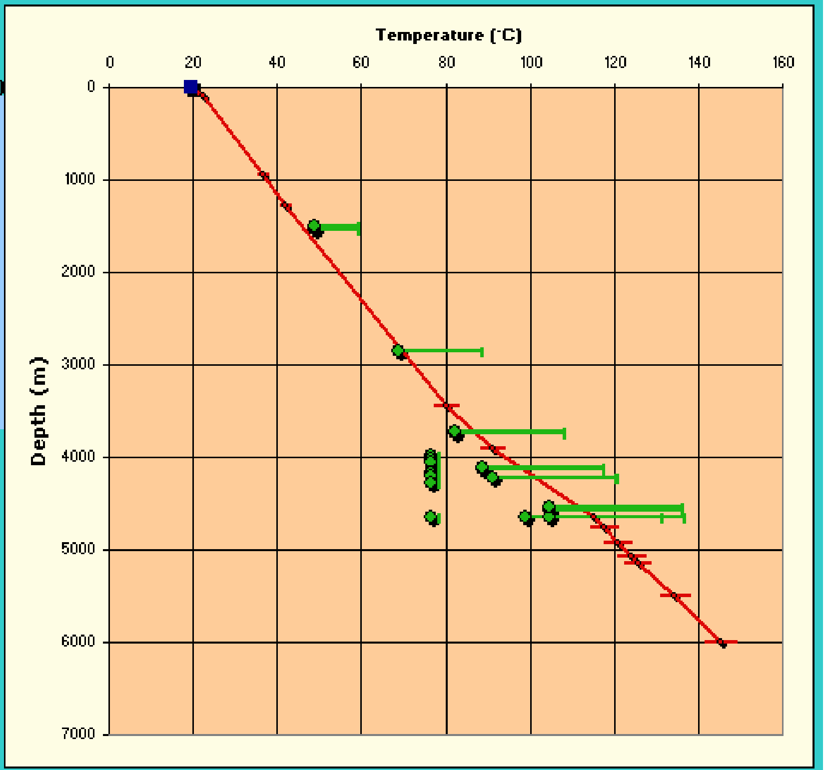


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
2736.5	101.9	1	3	horner corrected, depths averaged

Number of layers	15	Up to 50	Heat flow:	58	± 1.7 mW/m2
"Depth" to ground level	5	"KB height"			
Total Depth (m)	6000	From drilling datum			
Surface temp. (°C)	19.375	Whicher Range-1			

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		5	1.42 ± 0.14
2	Quaternary	5	1.42 ± 0.14
3	South Perth Shale	15	1.71 ± 0.14
4	Yarragadee Formation	98	3.54 ± 0.30
5	Cattamarra Coal Measure	937	3.73 ± 0.20
6	Lesueur Sandstone	1271	3.56 ± 0.23
7	Sabina Sandstone	3450	2.79 ± 0.12
8	Willespie Formation	3915	1.96 ± 0.11
9	Willespie Formation	4653	1.96 ± 0.11
10	Redgate Coal Measures	4654	2.87 ± 0.09
11	Ashbrook Sandstone	4752	3.98 ± 0.24
12	Rosabrook Coal Measure	4934	2.87 ± 0.09
13	Woodynook Sandstone	5071	4.15 ± 0.28
14	Mosswood Formation	5155	2.75 ± 0.42
15	Basement	5500	3.20 ± 0.40



Downhole temperature data (°C):

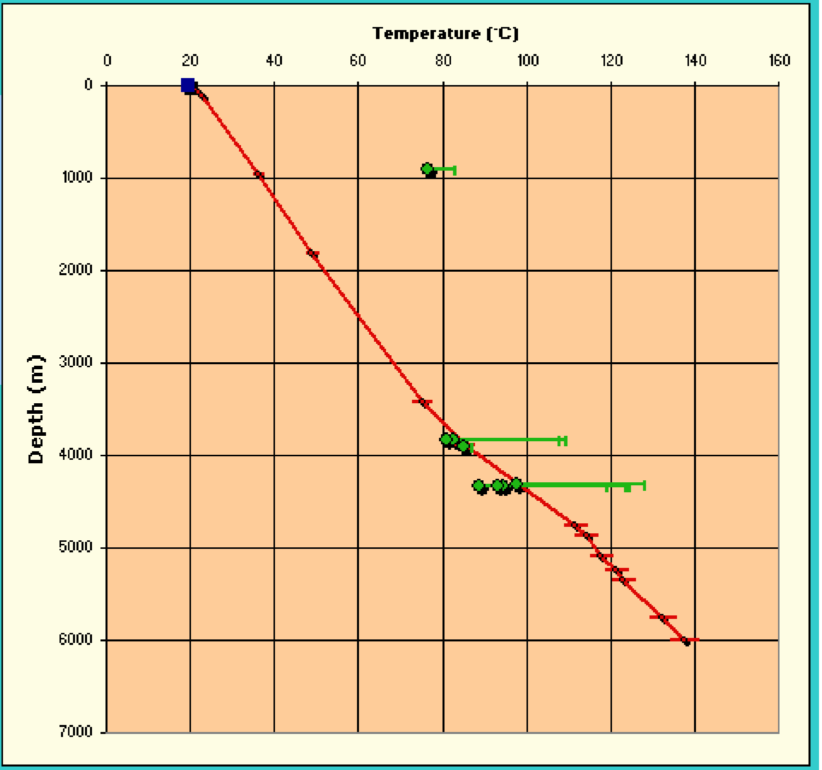
Depth (m)	Value	-uncert	+uncert	Comment:
1525.524	48.89	0	10.679	BHT, ΔT not recorded
1527.9624	48.89	0	10.696	BHT, ΔT not recorded
1526.4384	48.89	0	10.685	BHT, ΔT not recorded
1504.188	48.89	0	10.529	BHT, ΔT not recorded
2857.5	68.89	0	20.003	BHT, ΔT not recorded
2849.88	68.89	0	19.949	BHT, ΔT not recorded
2855.3664	68.89	0	19.988	BHT, ΔT not recorded
3735.9336	82.22	0	26.152	BHT, ΔT not recorded
3731.3616	82.22	0	26.12	BHT, ΔT not recorded
4123.3344	88.89	0	28.863	BHT, ΔT not recorded
4117.848	88.89	0	28.825	BHT, ΔT not recorded
4229.7096	91.11	0	29.608	BHT, ΔT not recorded
4225.7472	91.11	0	29.58	BHT, ΔT not recorded
4228.1856	91.11	0	29.597	BHT, ΔT not recorded
4576.572	104.44	0	32.036	BHT, ΔT not recorded
4570.7808	104.44	0	31.995	BHT, ΔT not recorded
4575.6576	104.44	0	32.03	BHT, ΔT not recorded
4575.6576	104.44	0	32.03	BHT, ΔT not recorded
4575.048	104.44	0	32.025	BHT, ΔT not recorded
4653.0768	98.89	0	32.572	BHT, ΔT not recorded
4648.2	104.44	0	32.537	BHT, ΔT not recorded
4652.1624	98.89	0	32.565	BHT, ΔT not recorded
4541.52	104.44	0	31.791	BHT, ΔT not recorded

Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
4653.08	76.6	0	2	DST estimated; 'Cased hole test. Gas to surface.
3985.1	76.6	0	2	DST estimated; 'Cased hole test. Misrun.
4024.6	76.6	0	2	DST estimated; second test of bore giving same results was ommited; Cased hole test. Opened tool w/ fiar blow. Gas to surface in 47 mins.
4059.3	76.6	0	2	DST estimated; 'Cased hole test. Final flow gas to surface in 17 mins, water cushion in 45 mins.
4173.9	76.6	0	2	DST estimated; second test of bore giving same results was ommited; 'Cased hole test. 1/2 " choke. Some condensate.
4204	76.6	0	2	DST estimated; 'Cased hole test. 3/8 " choke. Some condensate.
4272.5	76.6	0	2	DST estimated; second and third test of bore giving same results was ommited; 'Cased hole test. Poor blow at first flow period.

Number of layers	13	Up to 50	Heat flow: 54 ± 1.4 mW/m2
"Depth" to ground level	0	"KB height"	
Total Depth (m)	6000	From drilling datum	
Surface temp. (°C)	19.375	Whicher Range-2	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	Kwinana Group	0	1.42 ± 0.14
2	Warnbro Group	65	2.22 ± 0.16
3	Yarragadee Formation	108	3.54 ± 0.30
4	Cattamarra Coal Measure	969	3.73 ± 0.20
5	Lesueur Sandstone	1817	3.56 ± 0.23
6	Sabina Sandstone	3420	2.79 ± 0.12
7	Willespie Formation	3896	1.96 ± 0.11
8	Redgate Coal Measures	4756	2.87 ± 0.09
9	Ashbrook Sandstone	4875	3.98 ± 0.24
10	Rosabrook Coal Measure	5088	2.87 ± 0.09
11	Woodgnook Sandstone	5249	4.15 ± 0.28
12	Mosswood Formation	5347	2.75 ± 0.42
13	Basement	5750	3.20 ± 0.40

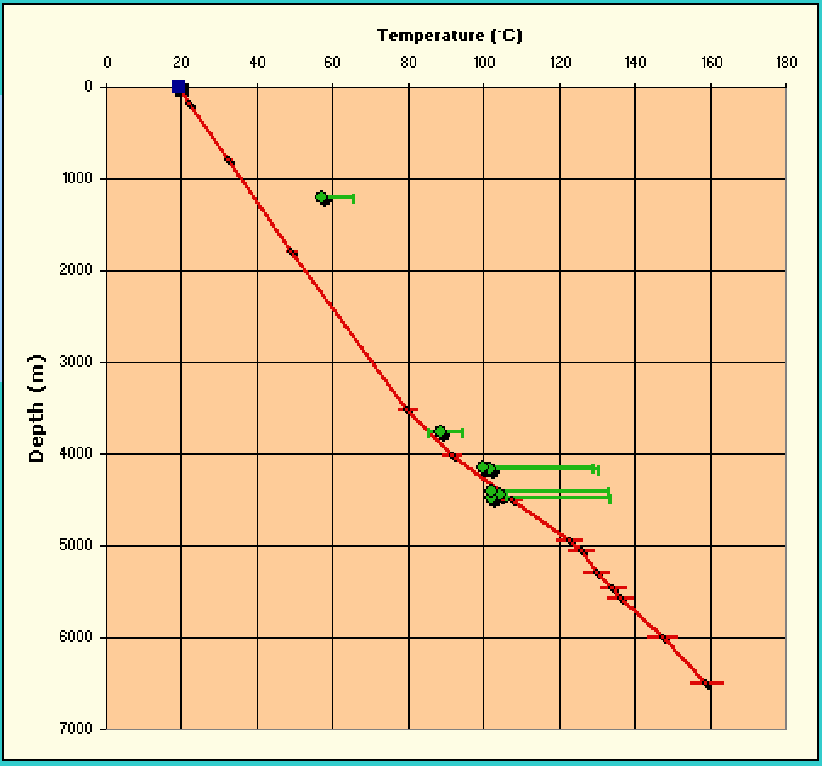


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
3906	85	0	2	DST actual; 'Open hole test. 74 bbls water cushion.
910	76.67	0	6.37	BHT, ΔT is 3 hours
3833.5	82.78	0	26.835	BHT, ΔT not recorded
3834	81.11	0	26.838	BHT, ΔT not recorded
4326	88.89	0	30.282	BHT, ΔT not recorded
4325	94.44	0	30.275	BHT, ΔT not recorded
4327	93.33	0	30.289	BHT, ΔT not recorded
4323	97.78	0	30.261	BHT, ΔT not recorded

Number of layers	13	Up to 50	**Heat flow:**	**59 ± 1.5 mW/m2**
"Depth" to ground level	5	"KB height"		
Total Depth (m)	6500	From drilling datum		
Surface temp. (°C)	19.25	**Whicher Range-3**		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		5	3.54 ± 0.30
2	Yarragadee Formation	184	3.54 ± 0.30
3	Cattamarra Coal Measure	791	3.73 ± 0.20
4	Lesueur Sandstone	1801	3.56 ± 0.23
5	Sabina Sandstone	3515	2.79 ± 0.12
6	Willespie Formation	4017	1.96 ± 0.11
7	Willespie Formation	4496	1.96 ± 0.11
8	Redgate Coal Measures	4937	2.87 ± 0.09
9	Ashbrook Sandstone	5064	3.98 ± 0.24
10	Rosabrook Coal Measure	5292	2.87 ± 0.09
11	Woodynook Sandstone	5464	4.15 ± 0.28
12	Mosswood Formation	5569	2.75 ± 0.42
13	Basement	6000	3.20 ± 0.40

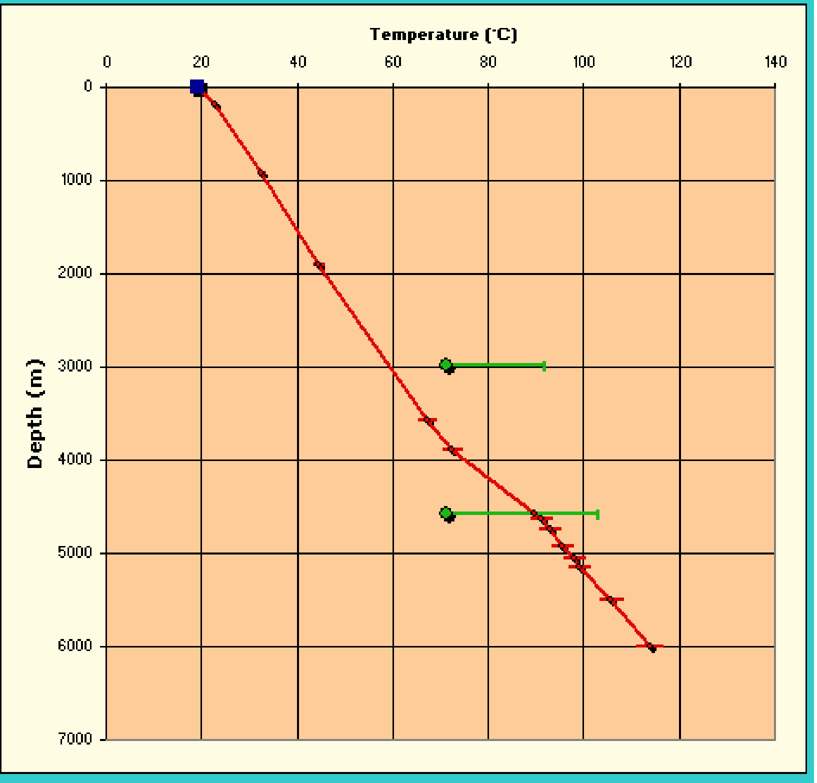


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
4438	104.4	0	2	DST actual; 'Cased hole test. Water to surface in 1.5hrs
3750.5	88.57	3	6	horner corrected, depths averaged; two data points
1207	57.22	0	8.449	BHT, ΔT not recorded
4159	101.6	0	29.113	BHT, ΔT is 7.75 hours
4157	100	0	29.099	BHT, ΔT is 10.75 hours
4154	100	0	29.078	BHT, ΔT not recorded
4488	102.2	0	31.416	BHT, ΔT is 12.75 hours
4411	102.2	0	30.877	BHT, ΔT is 18.5 hours
4407	102.2	0	30.849	BHT, ΔT is 24.5 hours

Number of layers	15	Up to 50	Heat flow: 45 ± 1.2 mW/m2
"Depth" to ground level	8	"KB height"	
Total Depth (m)	6000	From drilling datum	
Surface temp. (°C)	19.25	Whicher Range-4	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		8	1.42 ± 0.14
2	Cainozoic	8	1.42 ± 0.14
3	Warnbro Group	18	2.22 ± 0.16
4	Yarragadee Formation	186	3.54 ± 0.30
5	Cattamarra Coal Measure	932	3.73 ± 0.20
6	Lesueur Sandstone	1903	3.56 ± 0.23
7	Sabina Sandstone	3578	2.79 ± 0.12
8	Willespie Formation	3881	1.96 ± 0.11
9	Willespie Formation	4575	1.96 ± 0.11
10	Redgate Coal Measures	4632	2.87 ± 0.09
11	Ashbrook Sandstone	4735	3.98 ± 0.24
12	Rosabrook Coal Measure	4921	2.87 ± 0.09
13	Woodynook Sandstone	5061	4.15 ± 0.28
14	Mosswood Formation	5147	2.75 ± 0.42
15	Basement	5500	3.20 ± 0.40

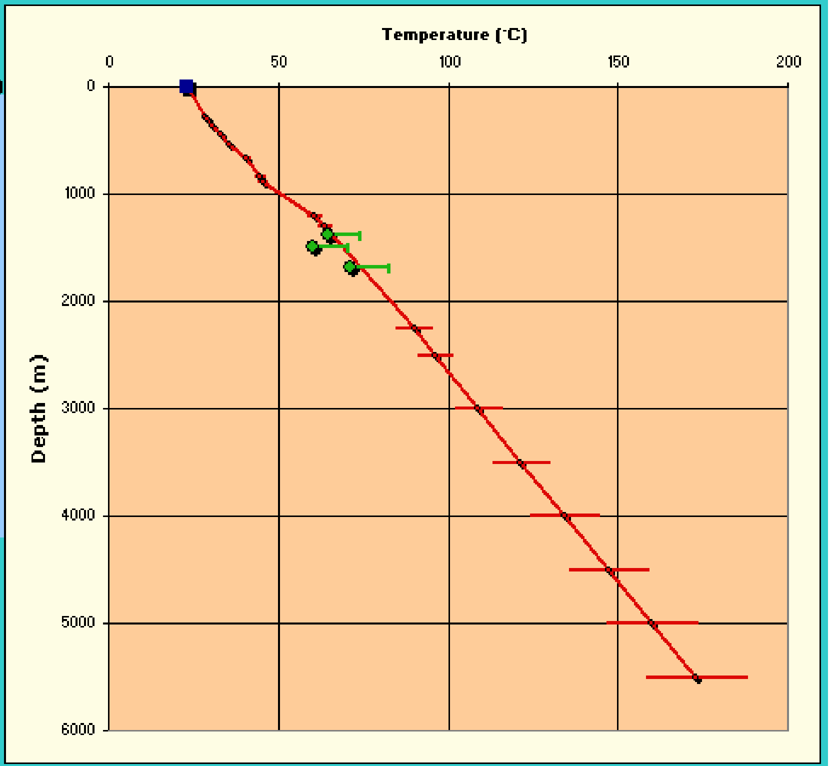


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
2973.3	71.11	0	20.813	BHT, ΔT not recorded
4575	71.11	0	32.025	BHT, ΔT not recorded

Number of layers	20	Up to 50	**Heat flow:**	70	± 3.0 mW/m2
"Depth" to ground level	4	"KB height"			
Total Depth (m)	5500	From drilling datum			
Surface temp. (°C)	22.875	**Vicherina-1**			

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		4	1.42 ± 0.14
2	Quaternary	4	1.42 ± 0.14
3	Yarragadee Formation	18	3.54 ± 0.30
4	Cadda Formation	280	4.14 ± 0.52
5	Cattamarra Coal Measure	297	3.73 ± 0.20
6	Kockatea Shale	371	2.09 ± 0.06
7	Wagina Sandstone	449	2.92 ± 0.56
8	Carynginia Formation	545	1.77 ± 0.36
9	Irwin River Coal Measures	674	3.02 ± 0.50
10	High Cliff Sandstone	835	4.40 ± 0.20
11	Holmwood Shale	893	1.45 ± 0.15
12	Nangetty Formation	1205	2.75 ± 0.48
13	Vicherina Beds	1308	2.75 ± 0.48
14	Basement	2250	3.20 ± 0.40
15	Basement	2500	3.20 ± 0.40
16	Basement	3000	3.20 ± 0.40
17	Basement	3500	3.20 ± 0.40
18	Basement	4000	3.20 ± 0.40
19	Basement	4500	3.20 ± 0.40
20	Basement	5000	3.20 ± 0.40

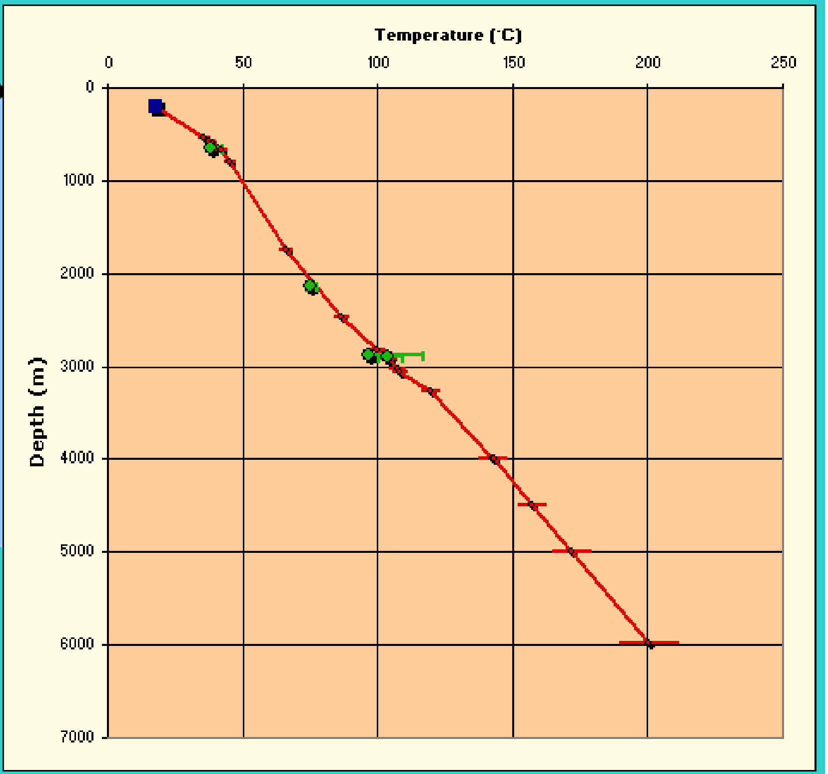


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1379.53	64.44	0	9.6567	BHT, ΔT not recorded
1379.53	64.44	0	9.6567	BHT, ΔT not recorded
1495.35	60	0	10.467	BHT, ΔT not recorded
1684.63	71.11	0	11.792	BHT, ΔT not recorded
1684.02	71.11	0	11.788	BHT, ΔT not recorded
1685.24	71.11	0	11.797	BHT, ΔT not recorded
1684.63	71.11	0	11.792	BHT, ΔT not recorded

Number of layers	20	Up to 50	Heat flow:	73 ± 2.7 mW/m2
"Depth" to ground level	198	"KB height"		
Total Depth (m)	5975	From driling datum		
Surface temp. (°C)	18	Vittecarra-1		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		198	1.42 ± 0.14
2	Unnamed	198	1.42 ± 0.14
3	Cardabia calcarenite	540	1.42 ± 0.14
4	Miria Formation	582	1.42 ± 0.14
5	Korojon Calcarenite	598	1.42 ± 0.14
6	Toolonga Calcilutite	664	1.42 ± 0.14
7	Yarragadee Formation	668	3.54 ± 0.30
8	Lesueur Sandstone	803	3.56 ± 0.23
9	Woodada Formation	1750	2.79 ± 0.12
10	Kockatea Shale	2465	2.09 ± 0.06
11	Caryngina Formation	2819	1.77 ± 0.36
12	Caryngina Formation	2890	1.77 ± 0.36
13	Irwin River Coal Measure:	2908	3.02 ± 0.50
14	High Cliff Sandstone	3019	4.40 ± 0.20
15	Holmwood Shale	3060	1.45 ± 0.15
16	Nangetty Formation	3276	2.75 ± 0.48
17	Wicherina Beds	3993	2.75 ± 0.48
18	Basement	4000	3.20 ± 0.40
19	Basement	4500	3.20 ± 0.40
20	Basement	5000	3.20 ± 0.40

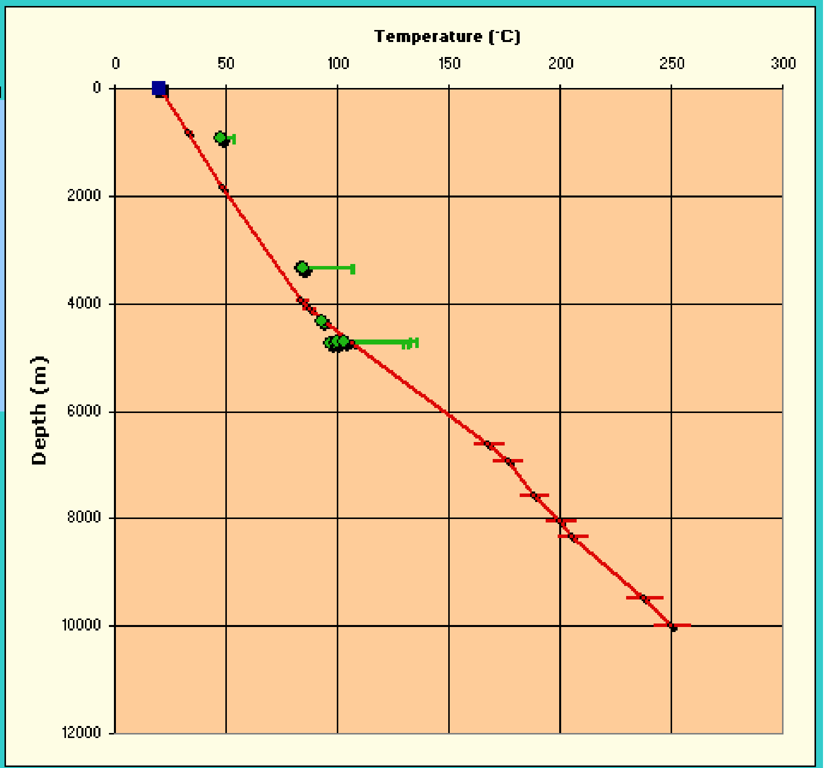


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
658	38	0	4.606	BHT, ΔT is 3.58 hours
2143	74.86	1	3	horner corrected, depths averaged
2888	103.7	3	6	horner corrected, depths averaged
2878	97	0	20.146	BHT, ΔT is 2 hours

Number of layers	14	Up to 50	**Heat flow:**	55	± 1.6 mW/m2
"Depth" to ground level	0	"KB height"			
Total Depth (m)	10000	From drilling datum			
Surface temp. (°C)	19.625	Wonnerup-1			

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	Quaternary	0	1.42 ± 0.14
2	Leederville Formation	17	2.56 ± 0.18
3	Yarragadee Formation	37	3.54 ± 0.30
4	Cattamarra Coal Measure	843	3.73 ± 0.20
5	Lesueur Sandstone	1850	3.56 ± 0.23
6	Sabina Sandstone	3956	2.79 ± 0.12
7	Willespie Formation	4104	1.96 ± 0.11
8	Willespie Formation	4727	1.96 ± 0.11
9	Redgate Coal Measures	6608	2.87 ± 0.09
10	Ashbrook Sandstone	6953	3.98 ± 0.24
11	Rosabrook Coal Measure	7572	2.87 ± 0.09
12	Woodynook Sandstone	8040	4.15 ± 0.28
13	Mosswood Formation	8326	2.75 ± 0.42
14	Basement	9500	3.20 ± 0.40

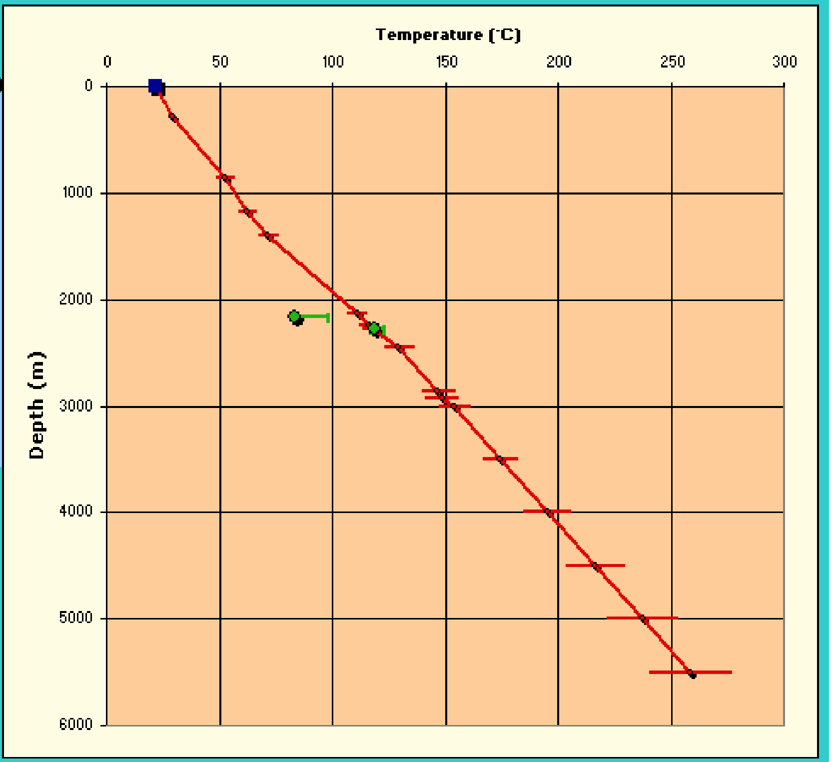


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
4339	92.7	0	2	DST actual; 'Open hole test. Tool failed, no recovery
4339	92.7	0	2	DST actual; 'Open hole test. Packer failed, no recovery
918.97	47.78	0	6.4328	BHT, ΔT not recorded
917.75	47.78	0	6.4243	BHT, ΔT not recorded
3335.12	83.89	0	23.346	BHT, ΔT not recorded
3334.21	84.44	0	23.339	BHT, ΔT not recorded
3333.9	84.44	0	23.337	BHT, ΔT not recorded
4726.84	96.67	0	33.088	BHT, ΔT not recorded
4727.14	98.89	0	33.09	BHT, ΔT not recorded
4723.49	100	0	33.064	BHT, ΔT not recorded
4725.92	103.33	0	33.081	BHT, ΔT not recorded
4726.23	103.33	0	33.084	BHT, ΔT not recorded

Number of layers	17	Up to 50	Heat flow: 102 ± 3.5 mW/m2
"Depth" to ground level	7	"KB height"	
Total Depth (m)	5500	From drilling datum	
Surface temp. (°C)	22	Woodada-08	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		7	3.73 ± 0.20
2	Cattamarra Coal Measure	7	3.73 ± 0.20
3	Eneabba Formation	280	2.62 ± 0.44
4	Lesueur Sandstone	860	3.56 ± 0.23
5	Woodada Formation	1173	2.79 ± 0.12
6	Kockatea Shale	1408	2.09 ± 0.06
7	Beekeeper Formation	2140	2.25 ± 0.21
8	Carynginia Formation	2245	1.77 ± 0.36
9	Carynginia Formation	2271	1.77 ± 0.36
10	Irwin River Coal Measures	2450	3.02 ± 0.50
11	High Cliff Sandstone	2860	4.40 ± 0.20
12	Holmwood Shale	2930	1.45 ± 0.15
13	Basement	3000	3.20 ± 0.40
14	Basement	3500	3.20 ± 0.40
15	Basement	4000	3.20 ± 0.40
16	Basement	4500	3.20 ± 0.40
17	Basement	5000	3.20 ± 0.40

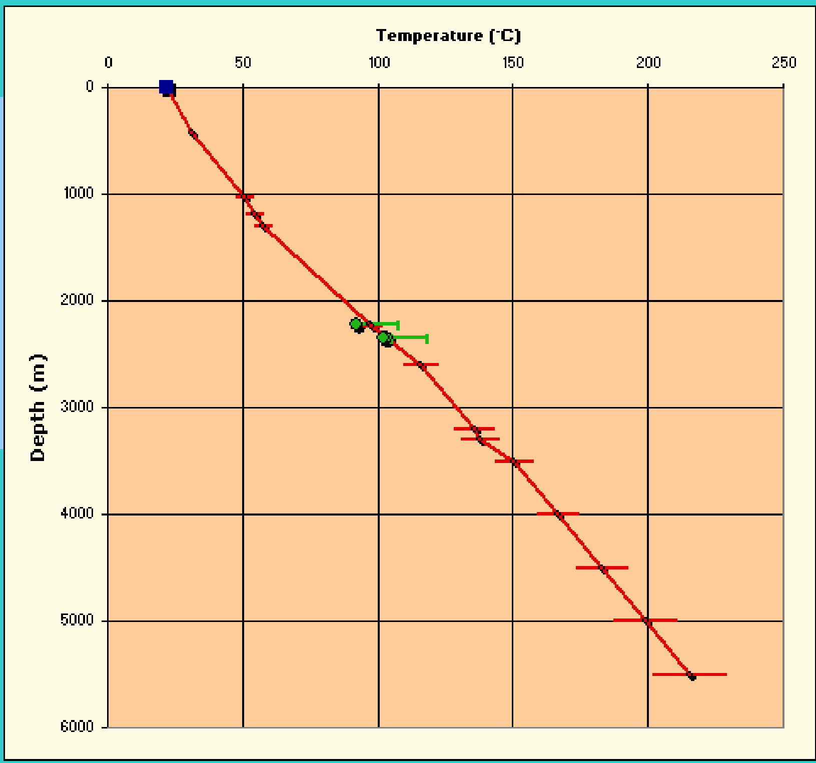


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
2270.2	119	2	4	horner corrected, depths averaged
2162	83.33	0	15.134	BHT, ΔT is 6 hours

Number of layers	16	Up to 50	Heat flow:	82 ± 3.0 mW/m2
"Depth" to ground level	7	"KB height"		
Total Depth (m)	5500	From drilling datum		
Surface temp. (°C)	22	Woodada-09		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		7	3.73 ± 0.20
2	Cattamarra Coal Measure	7	3.73 ± 0.20
3	Eneabba Formation	435	2.62 ± 0.44
4	Lesueur Sandstone	1030	3.56 ± 0.23
5	Woodada Formation	1195	2.79 ± 0.12
6	Kockatea Shale	1295	2.09 ± 0.06
7	Beekeeper Formation	2221	2.25 ± 0.21
8	Carynginia Formation	2244	1.77 ± 0.36
9	Carynginia Formation	2350	1.77 ± 0.36
10	Irwin River Coal Measures	2600	3.02 ± 0.50
11	High Cliff Sandstone	3200	4.40 ± 0.20
12	Holmwood Shale	3300	1.45 ± 0.15
13	Basement	3500	3.20 ± 0.40
14	Basement	4000	3.20 ± 0.40
15	Basement	4500	3.20 ± 0.40
16	Basement	5000	3.20 ± 0.40

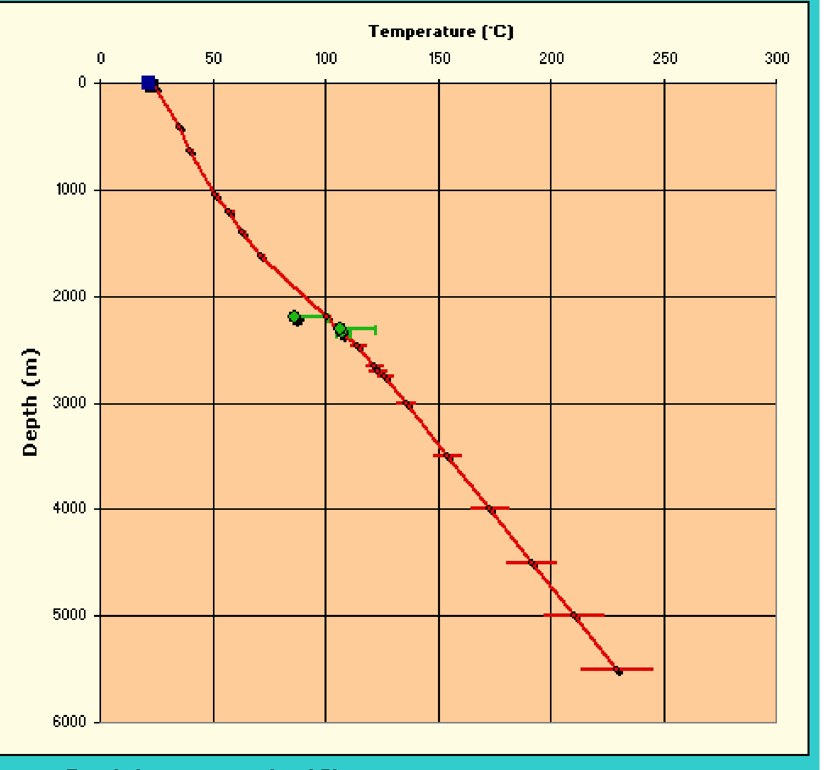


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
2350	103.3	0	2	DST actual; 'Cased hole test.
2224	92.22	0	15.568	BHT, ΔT not recorded
2354	102.22	0	16.478	BHT, ΔT not recorded

Number of layers	21	Up to 50	Heat flow:	96 ± 2.9 mW/m2
"Depth" to ground level	7	"KB height"		
Total Depth (m)	5500	From drilling datum		
Surface temp. (°C)	22	Woodada-10		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		7	1.42 ± 0.14
2	Tamala Limestone	7	1.42 ± 0.14
3	Yarragadee Formation	50	3.54 ± 0.30
4	Cadda Formation	420	4.14 ± 0.52
5	Cattamarra Coal Measure	630	3.73 ± 0.20
6	Eneabba Formation	1050	2.62 ± 0.44
7	Lesueur Sandstone	1207	3.56 ± 0.23
8	Woodada Formation	1407	2.79 ± 0.12
9	Kockatea Shale	1630	2.09 ± 0.06
10	Beekeeper Formation	2204	2.25 ± 0.21
11	Carynginia Formation	2309	1.77 ± 0.36
12	Carynginia Formation	2340	1.77 ± 0.36
13	Irwin River Coal Measures	2460	3.02 ± 0.50
14	High Cliff Sandstone	2660	4.40 ± 0.20
15	Holmwood Shale	2700	1.45 ± 0.15
16	Basement	2750	3.20 ± 0.40
17	Basement	3000	3.20 ± 0.40
18	Basement	3500	3.20 ± 0.40
19	Basement	4000	3.20 ± 0.40
20	Basement	4500	3.20 ± 0.40
21	Basement	5000	3.20 ± 0.40

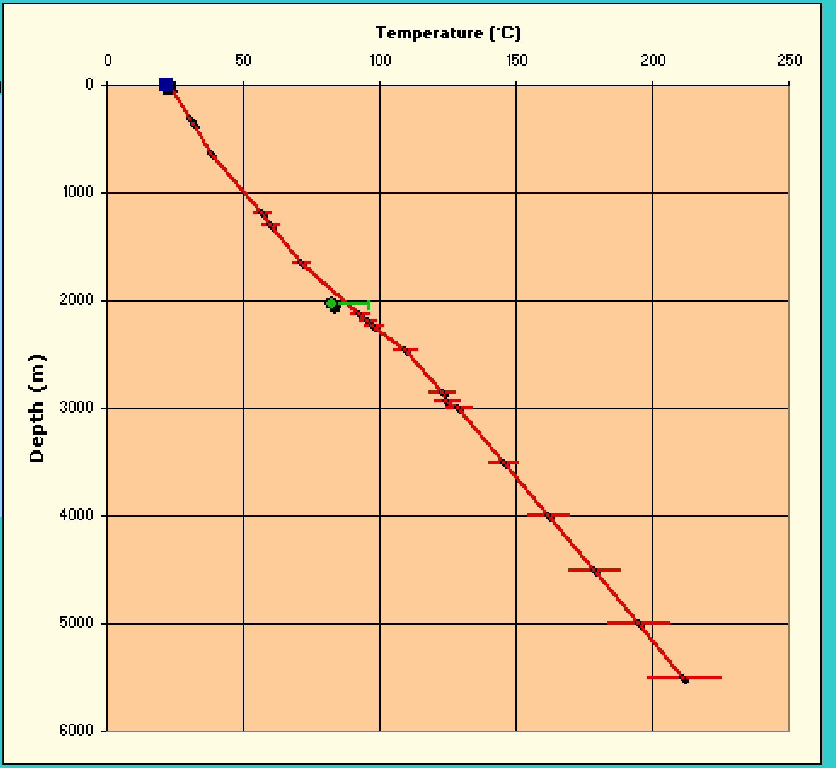


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
2338.25	107.5	2	4	horner corrected, depths averaged
2197.7	86.11	0	15.384	BHT, ΔT is 5.25 hours
2300.3	106.67	0	16.102	BHT, ΔT not recorded

Number of layers	19	Up to 50	Heat flow: 86 ± 3.0 mW/m2
"Depth" to ground level	0	"KB height"	
Total Depth (m)	5500	From drilling datum	
Surface temp. (°C)	22	Woodada-11	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	Coastal Limestone	0	1.42 ± 0.14
2	Yarragadee Formation	25	3.54 ± 0.30
3	Cadda Formation	324	4.14 ± 0.52
4	Cattamarra Coal Measure	368	3.73 ± 0.20
5	Eneabba Formation	637	2.62 ± 0.44
6	Lesueur Sandstone	1185	3.56 ± 0.23
7	Woodada Formation	1300	2.79 ± 0.12
8	Kockatea Shale	1644	2.09 ± 0.06
9	Beekeeper Formation	2125	2.25 ± 0.21
10	Beekeeper Formation	2191	2.25 ± 0.21
11	Carynginia Formation	2240	1.77 ± 0.36
12	Irwin River Coal Measures	2460	3.02 ± 0.50
13	High Cliff Sandstone	2860	4.40 ± 0.20
14	Holmwood Shale	2930	1.45 ± 0.15
15	Basement	3000	3.20 ± 0.40
16	Basement	3500	3.20 ± 0.40
17	Basement	4000	3.20 ± 0.40
18	Basement	4500	3.20 ± 0.40
19	Basement	5000	3.20 ± 0.40

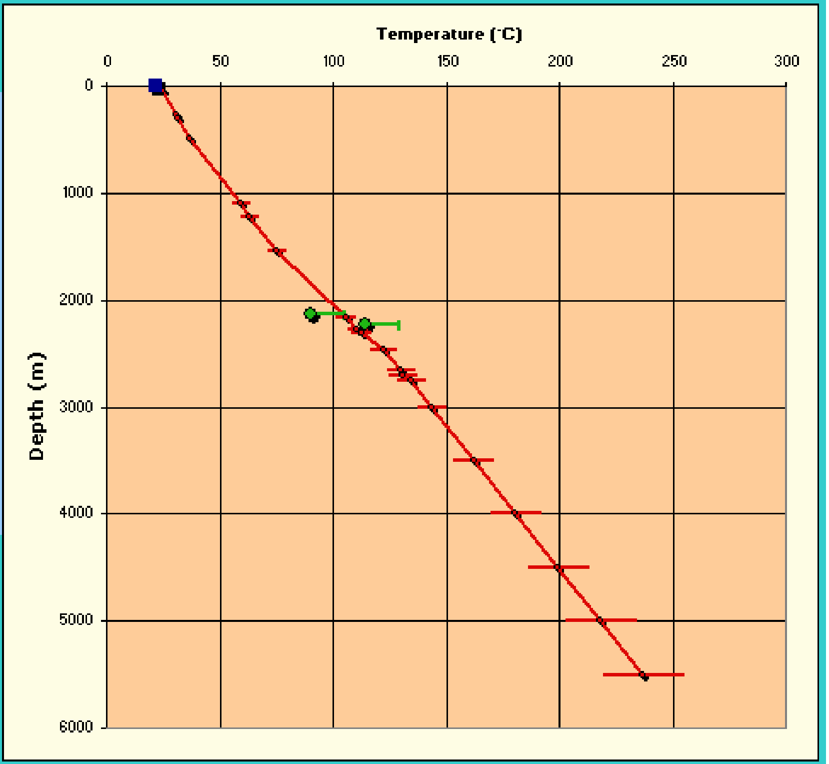


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
2035.5	82.2	0	14.249	BHT, ΔT is 9 hours

Number of layers	20	Up to 50	Heat flow: 95 ± 3.2 mW/m2
"Depth" to ground level	0	"KB height"	
Total Depth (m)	5500	From drilling datum	
Surface temp. (°C)	22	Woodada-12	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	coastal Limestone	0	1.42 ± 0.14
2	Yarragadee Formation	40	3.54 ± 0.30
3	Cadda Formation	273	4.14 ± 0.52
4	Cattamarra Coal Measure	309	3.73 ± 0.20
5	Eneabba Formation	498	2.62 ± 0.44
6	Lesueur Sandstone	1097	3.56 ± 0.23
7	Woodada Formation	1224	2.79 ± 0.12
8	Kockatea Shale	1548	2.09 ± 0.06
9	Beekeeper Formation	2166	2.25 ± 0.21
10	Carynginia Formation	2270	1.77 ± 0.36
11	Carynginia Formation	2300	1.77 ± 0.36
12	Irwin River Coal Measures	2460	3.02 ± 0.50
13	High Cliff Sandstone	2660	4.40 ± 0.20
14	Holmwood Shale	2700	1.45 ± 0.15
15	Basement	2750	3.20 ± 0.40
16	Basement	3000	3.20 ± 0.40
17	Basement	3500	3.20 ± 0.40
18	Basement	4000	3.20 ± 0.40
19	Basement	4500	3.20 ± 0.40
20	Basement	5000	3.20 ± 0.40

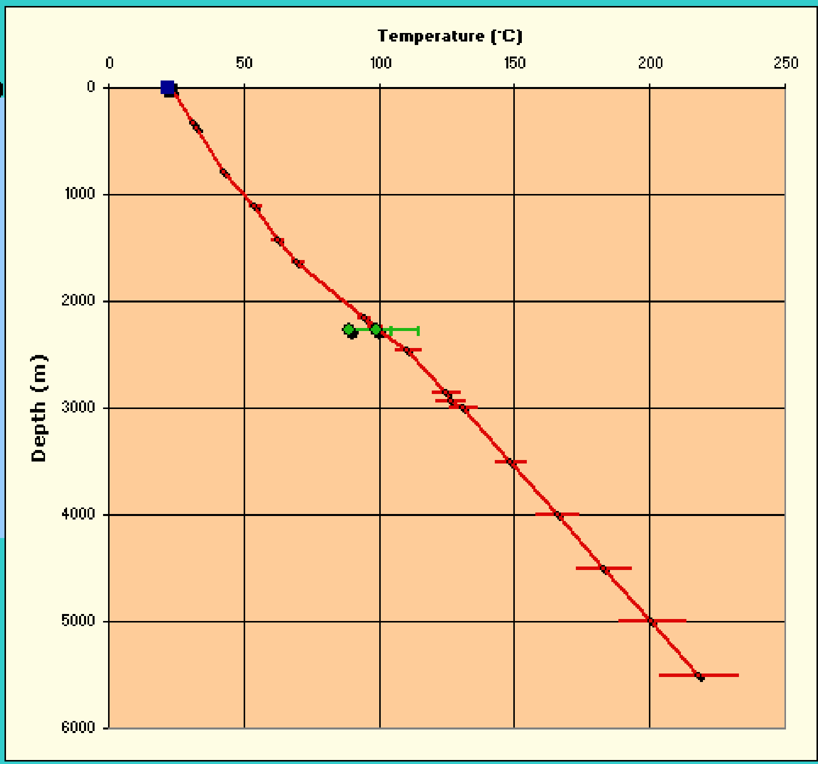


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
2137	90	0	14.959	BHT, ΔT is 12.25 hours
2234	114	0	15.638	BHT, ΔT not recorded

Number of layers	20	Up to 50	Heat flow:	90	± 2.9 mW/m2
"Depth" to ground level	4	"KB height"			
Total Depth (m)	5500	From driling datum			
Surface temp. (°C)	22	Woodada-14			

	Formation Name	Top (m)	Cond @ 25°C (W/mK)	
1		4	1.42	± 0.14
2	Quaternary Limestone	4	1.42	± 0.14
3	Yarragadee Formation	30	3.54	± 0.30
4	Cadda Formation	331	4.14	± 0.52
5	Cattamarra Coal Measure	374	3.73	± 0.20
6	Eneabba Formation	788	2.62	± 0.44
7	Lesueur Sandstone	1112	3.56	± 0.23
8	Woodada Formation	1422	2.79	± 0.12
9	Kockatea Shale	1630	2.09	± 0.06
10	Beekeeper Formatioon	2154	2.25	± 0.21
11	Carynginia Formation	2244	1.77	± 0.36
12	Carynginia Formation	2265	1.77	± 0.36
13	Irwin River Coal Measures	2460	3.02	± 0.50
14	High Cliff Sandstone	2860	4.40	± 0.20
15	Holmwood Shale	2930	1.45	± 0.15
16	Basement	3000	3.20	± 0.40
17	Basement	3500	3.20	± 0.40
18	Basement	4000	3.20	± 0.40
19	Basement	4500	3.20	± 0.40
20	Basement	5000	3.20	± 0.40

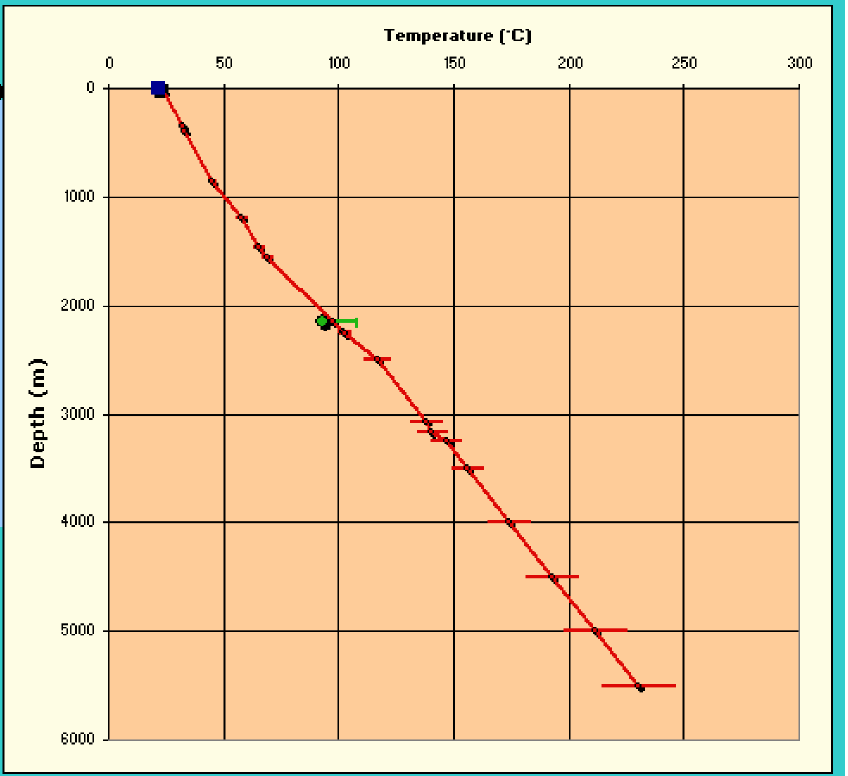


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
2265	89	0	15.855	BHT, ΔT not recorded
2265	99	0	15.855	BHT, ΔT not recorded

Number of layers	19	Up to 50	Heat flow	93	± 3.2 mW/m2
"Depth" to ground level	0	"KB height"			
Total Depth (m)	5500	From drilling datum			
Surface temp. (°C)	22	Woodada-15			

	Formation Name	Top (m)	Cond @ 25°C (W/mK)	
1	Unconsolidated sand	0	1.42	± 0.14
2	Yarragadee Formation	28	3.54	± 0.30
3	Cadda Formation	353	4.14	± 0.52
4	Cattamarra Coal Measure	391	3.73	± 0.20
5	Eneabba Formation	853	2.62	± 0.44
6	Lesueur Sandstone	1195	3.56	± 0.23
7	Woodada Formation	1459	2.79	± 0.12
8	Kockatea Shale	1564	2.09	± 0.06
9	Beekeeper Formation	2156	2.25	± 0.21
10	Carynginia Formation	2250	1.77	± 0.36
11	Carynginia Formation	2259	1.77	± 0.36
12	Irwin River Coal Measures	2500	3.02	± 0.50
13	High Cliff Sandstone	3070	4.40	± 0.20
14	Holmwood Shale	3160	1.45	± 0.15
15	Basement	3250	3.20	± 0.40
16	Basement	3500	3.20	± 0.40
17	Basement	4000	3.20	± 0.40
18	Basement	4500	3.20	± 0.40
19	Basement	5000	3.20	± 0.40

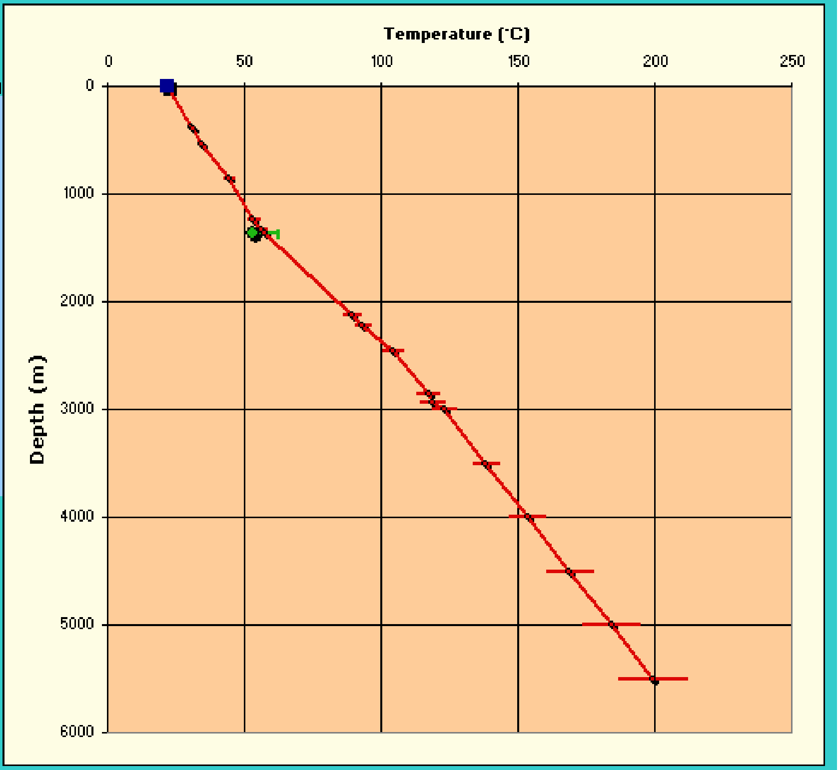


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
2151	93.3	0	15.057	BHT, ΔT is 16.17 hours

Number of layers	18	Up to 50	Heat flow:	81 ± 2.6 mW/m2
"Depth" to ground level	0	"KB height"		
Total Depth (m)	5500	From drilling datum		
Surface temp. (°C)	22	Woodada-17		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	Yarragadee Formation	0	3.54 ± 0.30
2	Cadda Formation	380	4.14 ± 0.52
3	Cattamarra Coal Measure	400	3.73 ± 0.20
4	Eneabba Formation	540	2.62 ± 0.44
5	Lesueur Sandstone	853	3.56 ± 0.23
6	Woodada Formation	1240	2.79 ± 0.12
7	Kockatea Shale	1340	2.09 ± 0.06
8	Kockatea Shale	1364	2.09 ± 0.06
9	Beekeeper Formation	2130	2.25 ± 0.21
10	Carynginia Formation	2230	1.77 ± 0.36
11	Irwin River Coal Measures	2455	3.02 ± 0.50
12	High Cliff Sandstone	2860	4.40 ± 0.20
13	Holmwood Shale	2930	1.45 ± 0.15
14	Basement	3000	3.20 ± 0.40
15	Basement	3500	3.20 ± 0.40
16	Basement	4000	3.20 ± 0.40
17	Basement	4500	3.20 ± 0.40
18	Basement	5000	3.20 ± 0.40

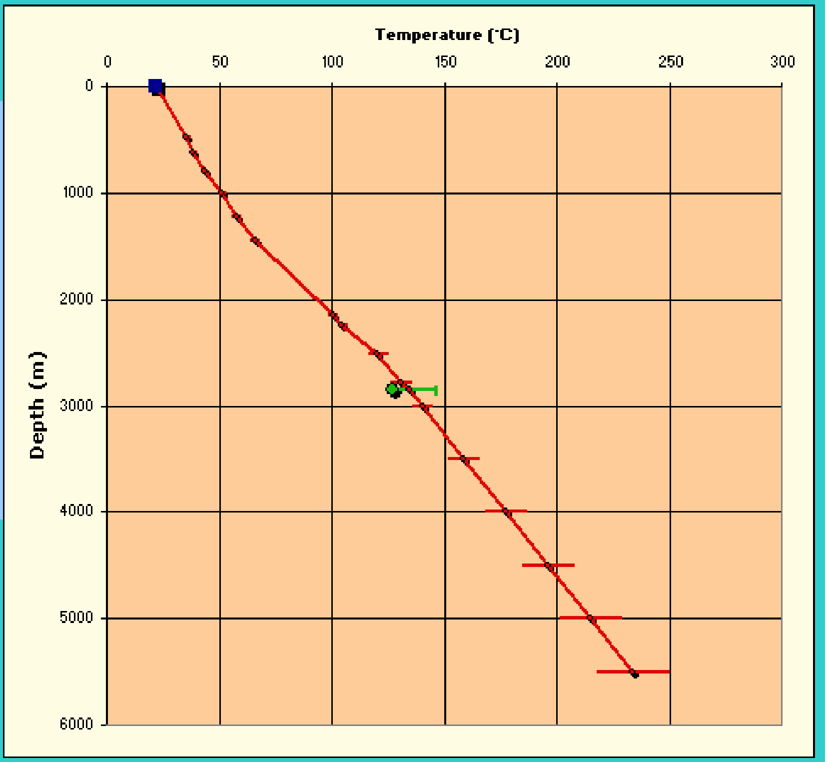


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
1364	53	0	9.548	BHT, ΔT not recorded

Number of layers	19	Up to 50	**Heat flow:** 95 ± 3.1 mW/m2
"Depth" to ground level	0	"KB height"	
Total Depth (m)	5500	From drilling datum	
Surface temp. (°C)	22	**Woodada-19**	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	Quaternary/coastal Limes	0	1.42 ± 0.14
2	Yarragadee Formation	10	3.54 ± 0.30
3	Cadda Formation	480	4.14 ± 0.52
4	Cattamarra Coal Measure	620	3.73 ± 0.20
5	Eneabba Formation	800	2.62 ± 0.44
6	Lesueur Sandstone	1005	3.56 ± 0.23
7	Woodada Formation	1230	2.79 ± 0.12
8	Kockata Shale	1455	2.09 ± 0.06
9	Beekeeper Formation	2156	2.25 ± 0.21
10	Carynginia Limestone	2247	1.77 ± 0.36
11	Irwin River Coal Measures	2514	3.02 ± 0.50
12	High Cliff Sandstone	2778	4.40 ± 0.20
13	Holmwood Shale	2793	1.45 ± 0.15
14	Basement	2841	3.20 ± 0.40
15	Basement	3000	3.20 ± 0.40
16	Basement	3500	3.20 ± 0.40
17	Basement	4000	3.20 ± 0.40
18	Basement	4500	3.20 ± 0.40
19	Basement	5000	3.20 ± 0.40

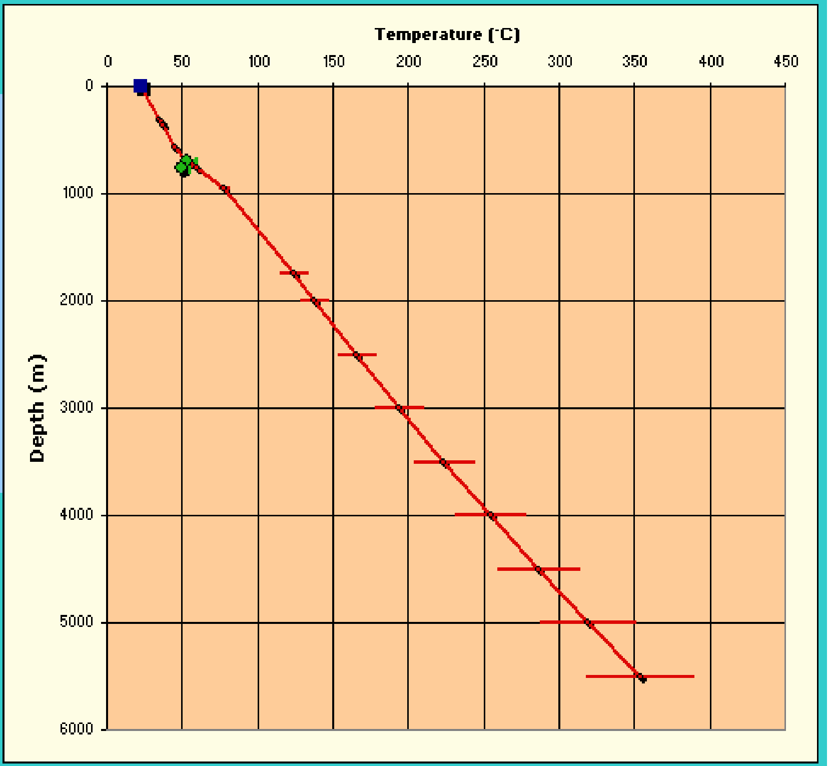


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
2842	127	0	19.894	BHT, ΔT is 2 hours

Number of layers	18	Up to 50	Heat flow: 140 ± 5.6 mW/m2
"Depth" to ground level	0	"KB height"	
Total Depth (m)	5500	From drilling datum	
Surface temp. (°C)	22.5	Vge-1	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	Yarragadee Formation	0	3.54 ± 0.30
2	Champion Bay Group	310	4.14 ± 0.52
3	Newmarracarra Limestone	339	4.14 ± 0.52
4	Cattamarra Coal Measure	362	3.73 ± 0.20
5	Kockatea Shale	568	2.09 ± 0.06
6	Dongara Sandstone	677	2.92 ± 0.56
7	Holmwood Shale	714	1.45 ± 0.15
8	Holmwood Shale	766	1.45 ± 0.15
9	Nangetty Formation	952	2.75 ± 0.48
10	Wicherina Beds	1742	2.75 ± 0.48
11	Basement	1750	3.20 ± 0.40
12	Basement	2000	3.20 ± 0.40
13	Basement	2500	3.20 ± 0.40
14	Basement	3000	3.20 ± 0.40
15	Basement	3500	3.20 ± 0.40
16	Basement	4000	3.20 ± 0.40
17	Basement	4500	3.20 ± 0.40
18	Basement	5000	3.20 ± 0.40

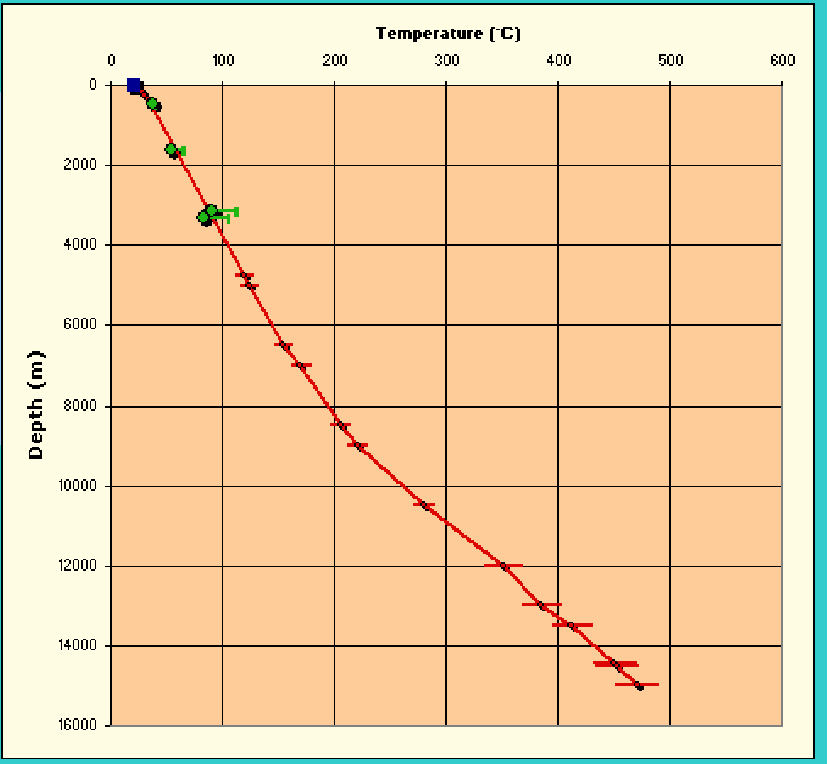


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
700.75	53.46	3	6	horner corrected, depths averged, two data points
765	50	0	5.355	BHT, ΔT is 8 hours
763.5	50	0	5.3445	BHT, ΔT not recorded

Number of layers	16	Up to 50	**Heat flow:** 62 ± 2.6 mW/m2
"Depth" to ground level	0	"KB height"	
Total Depth (m)	15000	From drilling datum	
Surface temp. (°C)	21.5	**Yallallie-1**	

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	Tertiary Sandstone	0	1.42 ± 0.14
2	Leederville Formation	177	2.56 ± 0.18
3	Parmelia Group	239	2.58 ± 0.33
4	Yarragadee Formation	320	3.54 ± 0.30
5	Cadda Formation	4750	4.14 ± 0.52
6	Cattamarra Coal Measure	5000	3.73 ± 0.20
7	Eneabba Formation	6500	2.62 ± 0.44
8	Lesueur Sandstone	7000	3.56 ± 0.23
9	Woodada Formation	8500	2.79 ± 0.12
10	Kockatea Shale	9000	2.09 ± 0.06
11	Carynginia Formation	10500	1.77 ± 0.36
12	Irwin River Coal Measures	12000	3.02 ± 0.50
13	Holmwood Shale	13000	1.45 ± 0.15
14	Nangetty Formation	13500	2.75 ± 0.48
15	Wicherina Beds	14450	2.75 ± 0.48
16	Basement	14500	3.20 ± 0.40

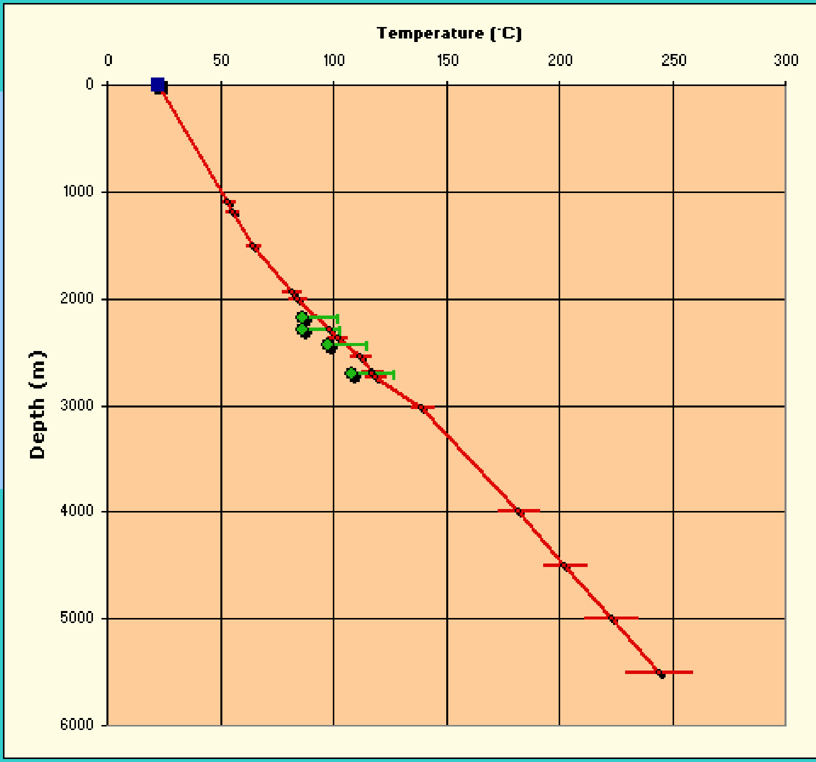


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
487	38	0	3.409	BHT, ΔT not recorded
484	38	0	3.388	BHT, ΔT not recorded
1593.3	54	0	11.153	BHT, ΔT not recorded
1593.3	55	0	11.153	BHT, ΔT not recorded
3144	90	0	22.008	BHT, ΔT not recorded
3145	91	0	22.015	BHT, ΔT not recorded
3320	83	0	23.24	BHT, ΔT not recorded

Number of layers	18	Up to 50	Heat flow:	96 ± 4.3 mW/m2
"Depth" to ground level	0	"KB height"		
Total Depth (m)	5500	From driling datum		
Surface temp. (°C)	22.5	Yardarino-3		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1	Quaternary	0	1.42 ± 0.14
2	Yarragadee Formation	4	3.54 ± 0.30
3	Cadda Formation	1103	4.14 ± 0.52
4	Cattamarra Coal Measure	1189	3.73 ± 0.20
5	Eneabba Formation	1513	2.62 ± 0.44
6	Woodada Formation	1940	2.79 ± 0.12
7	Kockatea Shale	2005	2.09 ± 0.06
8	Dongara Sandstone	2294	2.92 ± 0.56
9	Carynginia Formation	2379	1.77 ± 0.36
10	Irwin River Coal Measures	2548	3.02 ± 0.50
11	High Cliff Sandstone	2684	4.40 ± 0.20
12	High Cliff Sandstone	2700	4.40 ± 0.20
13	Holmwood Shale	2738	1.45 ± 0.15
14	Nangetty Formation	3028	2.75 ± 0.48
15	Wicherina Beds	3990	2.75 ± 0.48
16	Basement	4000	3.20 ± 0.40
17	Basement	4500	3.20 ± 0.40
18	Basement	5000	3.20 ± 0.40

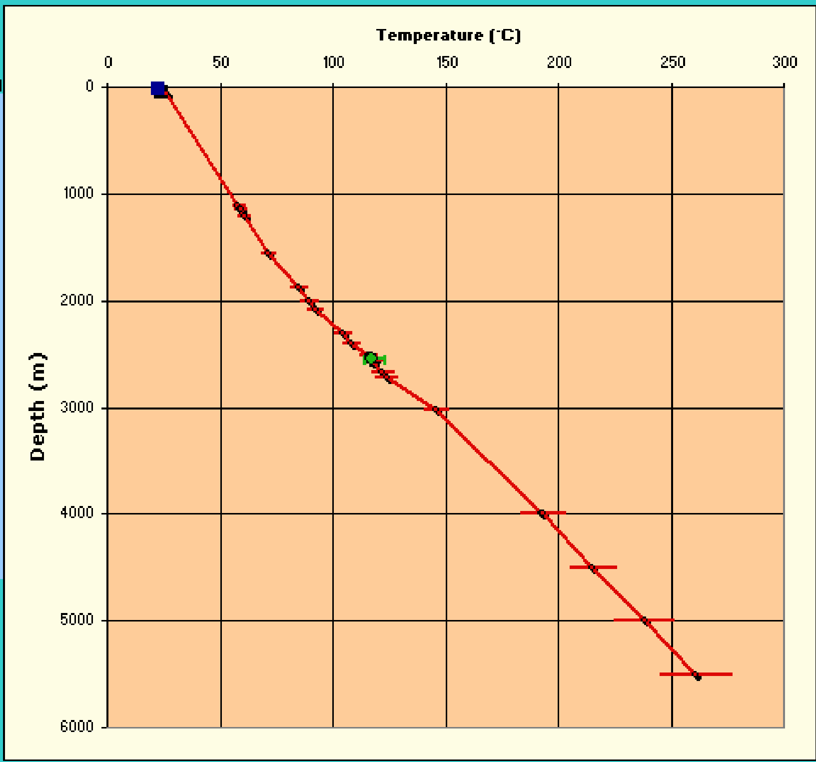


Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
2185.7208	86.67	0	15.3	BHT, ΔT not recorded
2186.0256	86.67	0	15.302	BHT, ΔT not recorded
2299.4112	86.67	0	16.096	BHT, ΔT not recorded
2437.4856	97.78	0	17.062	BHT, ΔT not recorded
2437.7904	97.78	0	17.065	BHT, ΔT not recorded
2436.876	97.78	0	17.058	BHT, ΔT not recorded
2699.004	108.33	0	18.893	BHT, ΔT not recorded
2698.0896	108.33	0	18.887	BHT, ΔT not recorded
2699.004	108.33	0	18.893	BHT, ΔT not recorded
2698.3944	108.33	0	18.889	BHT, ΔT not recorded

Number of layers	22	Up to 50	Heat flow:	103 ± 4.6 mW/m2
"Depth" to ground level	8	"KB height"		
Total Depth (m)	5500	From drilling datum		
Surface temp. (°C)	22.5	Yardarino-5		

	Formation Name	Top (m)	Cond @ 25°C (W/mK)
1		8	1.42 ± 0.14
2	Quaternary Sandstone	8	1.42 ± 0.14
3	Yarragadee Formation	61	3.54 ± 0.30
4	Cadda Formation	1107	4.14 ± 0.52
5	Newmarracarra Limestone	1140	4.14 ± 0.52
6	Colalura Limestone	1152	4.14 ± 0.52
7	Cattamarra Coal Measure	1203	3.73 ± 0.20
8	Eneabba Formation	1567	2.62 ± 0.44
9	Lesueur Sandstone	1874	3.56 ± 0.23
10	Woodada Sandstone	2013	2.79 ± 0.12
11	Kockatea Shale	2081	2.09 ± 0.06
12	Dongara Sandstone	2305	2.92 ± 0.56
13	Carynginia Formation	2398	1.77 ± 0.36
14	Irwin River Coal Measures	2513	3.02 ± 0.50
15	Irwin River Coal Measures	2560	3.02 ± 0.50
16	High Cliff Sandstone	2670	4.40 ± 0.20
17	Holmwood Shale	2725	1.45 ± 0.15
18	Nangetty Formation	3018	2.75 ± 0.48
19	Wicherina Beds	3990	2.75 ± 0.48
20	Basement	4000	3.20 ± 0.40
21	Basement	4500	3.20 ± 0.40
22	Basement	5000	3.20 ± 0.40



Downhole temperature data (°C):

Depth (m)	Value	-uncert	+uncert	Comment:
2548.1	117.6	3	6	horner corrected, depths averaged