

3.5 Frankford 1

The heat flow model for Frankford 1 (Fig.4) illustrates a good fit between the observed and predicted temperature profiles. The well commenced in Jurassic dolerite rocks with thermal conductivities ranging from 2.17–2.35 W/mK, and is thought to have passed into silty sandstones of the Permian Parmeener Super Group rocks at approximately 195 m with thermal conductivities ranging from 3.00 – 3.26 W/mK. The modelled surface heat flow is $72 \pm 2.2 \text{ mW/m}^2$ calculated from the conductivity-constrained interval (approximately 116 m – 249 m).

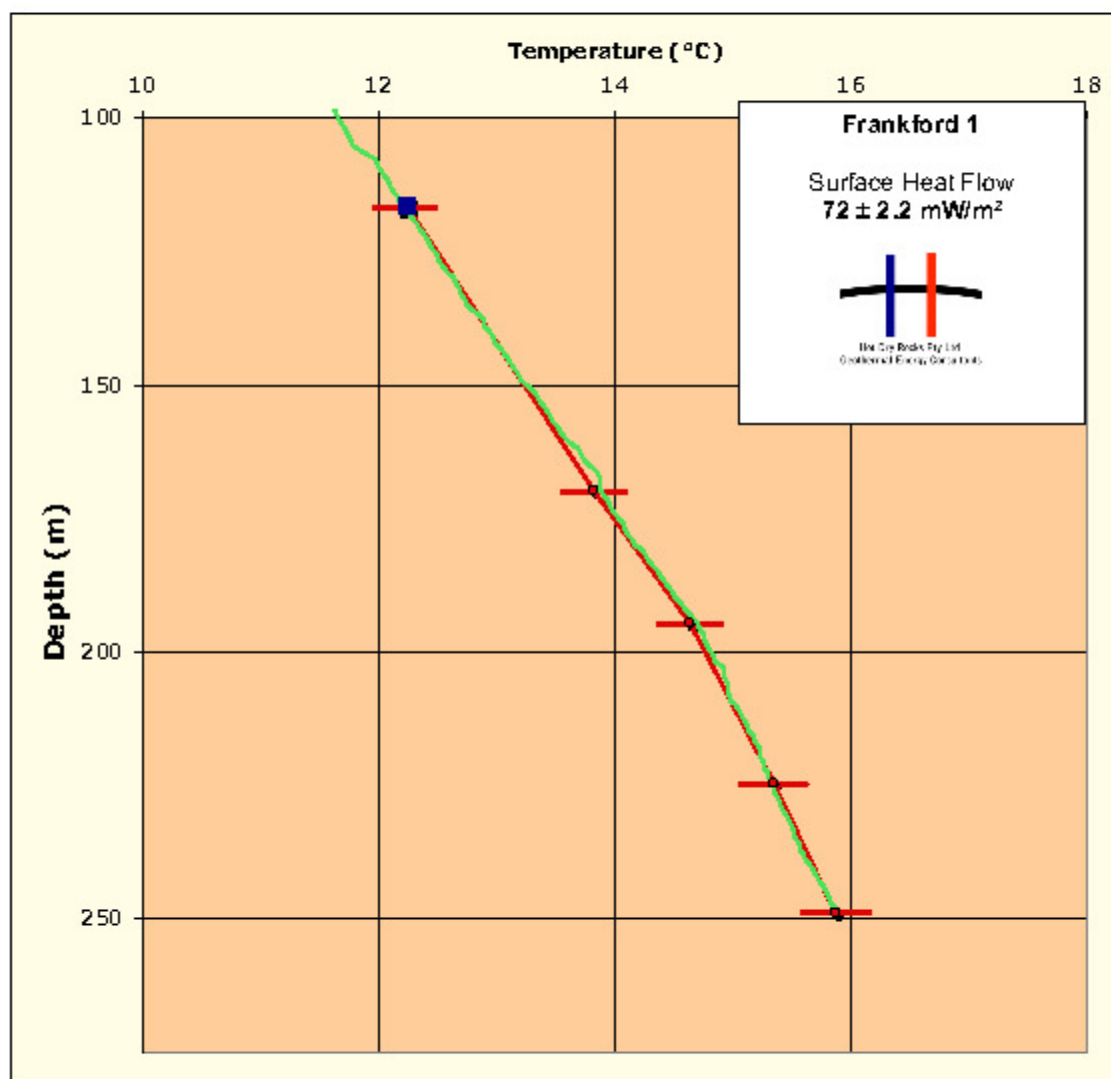


Figure 4. Frankford 1 – conductive heat flow modelled from rock thermal conductivity data and precision temperature log (green line). Red line is the modelled temperature profile for the stated heat flow. Divergence in the temperature profile in the deeper section of the bore is due to contrasting conductivities.