Unbiased Geothermal Temperature Gradient = GradTGN

@wikipedia

Rate of Unbiased Geothermal Temperature Profile $T_{GN}(\mathbf{r})$ change along True Vertical Direction z:

(1) $$\mathrm{Grad}T_{GN}(\mathbf{r}) = \frac{\partial T_{GN}}{\partial z}$$

It can be estimated as ratio of true vertical component of regional Earth's Heat Flux $j_z(\mathbf{r})$ to the subsurface Thermal Conductivity $\lambda_e(\mathbf{r})$ at a certain subsurface point $\mathbf{r}$:

(2) $$\mathrm{Grad}T_{GN}(\mathbf{r}) = \frac{j_z(\mathbf{r})}{\lambda_e(\mathbf{r})}$$

The most common value of Unbiased Geothermal Temperature Gradient (GT) away from tectonic plate boundaries is: $G_T = 0.025 \div 0.035\,^{\circ}\mathrm{C/m}$.

The difference between Geothermal Temperature Gradient (GradTG) and Unbiased Geothermal Temperature Gradient (GradTGN) is that the former accounts for the effects of the seasonal/daily temperature variations, which are only significant above Neutral Temperature Layer.

See Also

Geology / Geothermal Temperature Field

[Geothermal Temperature Gradient (GradTG)] [Geothermal Temperature Profile (TG)]