

GRACE CARLSBAD BRUSHY CANYON RW

The nearest Brushy Canyon Formation water sample is located in 10-22S-27E. The RW of the sample is from the UNOCAL Tracy #1, 10-22S-27E, API # 30-015-20204. The published RW is 0.047 ohm-meters at a depth of 4434' and 75 degrees Fahrenheit. The Unocal Tracy was drilled to a total depth of 10,693'. To get an accurate bottom hole temperature of the Brushy Canyon Formation, the UNOCAL Federal AJ #1, 10-22S-27E, API # 30-015-23282 was used because it was drilled to a total depth of 4,500' and had a bottom hole temperature of 98 degrees Fahrenheit. The UNOCAL Federal AJ #1 well is located approximately ¼ of a mile to the southeast from the UNOCAL Tracy #1 well. The Brushy Canyon top is at 3,760', and the base of the Brushy Canyon is at 5,301' in the UNOCAL Tracy #1. The Brushy Canyon top is at 3,766', in the UNOCAL Federal AJ #1, and it was TD'd in the Brushy Canyon Formation. When the Brushy Formation RW, measured at 75 degrees Fahrenheit, is converted to the Brushy Canyon bottom hole temperature of 98 degrees Fahrenheit, the calculated RW is 0.036 ohm-meters.

Equation to convert published RW at 75 degrees Fahrenheit to the Brushy Canyon Formation bottom hole temperature of 98 degrees Fahrenheit:

$$RW(\text{Formation Temperature}) = RW(\text{measured}) * \frac{(\text{Temperature of RW measured} + 6.77)}{(\text{Temperature of Formation} + 6.77)}$$

$$RW(\text{Formation Temperature}) = 0.047 \Omega\text{-meters} * \frac{(75^{\circ}\text{F} + 6.77)}{(98^{\circ}\text{F} + 6.77)}$$

$$RW(\text{Formation Temperature}) = 0.0366 \Omega\text{-meters}$$