

Magnetostratigraphic Results from the Middle Permian Type Section, Guadalupe Mountains, West Texas

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Permian sequences from the Guadalupe National Park and its surroundings are magnetostratigraphically investigated in part. 720 specimen have been sampled from the Bone Spring Member (Cutoff Formation, Kungurian stage) at the bottom to the Lamar Limestone (upper-most Bell Canyon Formation, Capitanian stage) at the top.

The palaeo- and rockmagnetic behavior is complex. Thus, a standard demagnetization procedure can't be applied. According to thermal and alternating field demagnetization there are three magnetic components. Component A is a viscous remanent magnetization (VRM) of recent/subrecent age. Component B is a chemoremanent magnetization (CRM) of secondary age carried by goethite or/and haematite. The characteristic remanent magnetization (ChRM, Component C), is probably of diagenetic age. It is carried mostly by magnetite and in minor samples by haematite. The reversal test is positive for most samples with a magnetite-bearing ChRM. The conglomerate test is negative. A fold test isn't applicable. Most sandstones are remagnetized. The low conodont color alteration index of about 1.5 excludes remagnetization of the limestones by tectonic processes.

The Cutoff Formation, Getaway Limestone, and Manzanita Limestone of the Cherry Canyon Formation (Roadian-Wordian) are reversed polarized. Thus, the existence of the Carboniferous-Permian Reversed Megazone is confirmed.

To date, few normal polarized samples in the Pinery Limestone and the Lamar Limestone allocate the Illawarra Reversal (265 Ma) near the base of the Capitanian which is defined by the conodont *Jinogondolella nankingensis*.