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The Lower Muschelkalk (Middle Wellenkalk to Schaumkalk) at Dün and Hainleite

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Abstract

At Dün the Middle Wellenkalk formation is 27 m thick. Thickness data from Hainleite are contradictory. In BAUSS (1958) a thickness of 23 m is mentioned. SEIDEL (1963) measured a thickness of 31 m in examination of the drilling Hachelbich 2. In the central part of the Finne-fault-zone (Schmücke, quarry Burgwenden) KRAMM (2000) identified 30 m thickness. The difference will be caused by the layer "Sub-Terebratelbank", which will be counted either to the "Terebratelzone" or to the Middle Wellenkalk formation. In fact, in Thuringia the "Sub-Terebratelbank" will be correlated with the layer "Spiriferina-Bank" which is part of the Middle Wellenkalk. The hard marl-limestones of the Middle Wellenkalk formation contain hard grounds and thin arenites. This layers can be divided in n three cycles (a, b, c). The "Terebratelbänke" have a thickness of 8 m in Geisleden. In Eastern direction between Reifenstein, Sondershausen (7 m) and the E-part of Hainleite (Kohnstein: 6,3 m) the layer gets thinner. The Lower Trebratelbank has a maximum in thickness at Eichsfeld-Swell (Reifenstein: 3,85 m, Holzthaleben: 4,10 m).

At Dün and Hainleite the Upper Wellenkalk formation is between 14 to 15 m thick. The thickness of the "Schaumkalkbänke" varies caused by high variation of the Lower Schaumkalkbank. At Dün the Middle and the Upper part of the Schaumkalk-limestones will be divided in two parts. At Hainleite the Upper Schaumkalk has a thickness of 1,3-2,5 m. At Dün this part the Upper Schaumkalk is only 0,8 m thick.