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The scientific drilling EF-FB 1/12: Introduction and first stratigraphic results of the new drilling in the central part of the Thuringian Syncline

CINDY KUNKEL, MICHAEL ABRATIS, BERND MÜLLER, JANA HOFMANN, THOMAS TIEPNER, MICHAELA AEHNELT, THOMAS VOIGT, REINHARD GAUPP, NINA KUKOWSKI, KAI UWE TOTSCHE UND DAS WISSENSCHAFTLICHE BOHRTEAM VON INFLUINS*

Abstract

In the summer of 2013 a scientific deep drilling EF-FB 1/12 in the north of Erfurt was carried out in the framework of the BMBF-project INFLUINS. The drilling penetrated the Quaternary cover and the underlying Triassic succession from the Middle Keuper to short above the Buntsandstein-Zechstein boundary at about 1200 m. Over the whole interval 646 m cuttings and 533 m cores were sampled. The core recovery was very high with almost 100 % and excellently preserved sandstones, siltstones and mudstones as well as carbonates, sulphates and chlorides were recovered.

The cored intervals cover two intervals; the section from the base of the Upper Muschelkalk to the Top of the Lower Muschelkalk with 41 m of salt in the Middle Muschelkalk without signs of subrosion as well as a section from the base of the Lower Muschelkalk to the base of the Middle Buntsandstein with 46 m of undisturbed salt layers in the Upper Buntsandstein.