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Petrophysical record of the Middle Devonian Basal Choteč event in different palaeogeographical settings (Perigondwanan Perunica microcontinent, Laurussia and Zeravshan-Gissar Mountain Region in Central Asia): a reflection of global palaeoclimatic changes?

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Petrophysical record of the Basal Choteč event (BCE) interval close above the Emsian–Eifelian boundary has been studied in three different palaeogeographical settings: Perigondwanan Perunica microcontinent in the Barrandian Area, Prague Synorm (Czech Republic), Laurussia in the Central Great Basin (USA, Nevada) and Central Asian settings in South Tien-Shan Folded Area in the Zeravshan-Gissar Mountain Region (Kitab, Uzbekistan). Magnetic susceptibility (MS) and gamma-ray spectrometry (GRS) were applied.

Studied interval embraces roughly *Polygnathus costatus patulus* to *Polygnathus costatus costatus* conodont zones.

Similar features of the logs were revealed. Elevated input of shallow-water detritus skeletal material and increased turbidite activity mark the critical interval and the incipient environmental changes. GRS logs are characterized by elevated concentrations of U at the expense of Th concentration (total GRS is driven by the U content) at the event interval whereas U and Th concentrations below and above become closer or Th concentrations prevail (Prague Synorm, CZ and Central Great Basin, NV). MS log shows attenuated oscillations and a delicate to distinct decrease in the values at the very event datum with no regard to the lithology. This might be indicative of calming down of the processes (atmospheric circulation, ocean currents etc.) which control the input of detrital material and drive the MS signal.

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