Datashare 131

Magnetic susceptibility variations in lower Paleozoic shales of the western Baltic Basin (northern Poland): A tool for regional stratigraphic correlations and the decoding of paleoenvironmental changes

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AAPG Bulletin, v.105, no.5 (May 2021), pp. 987–1007

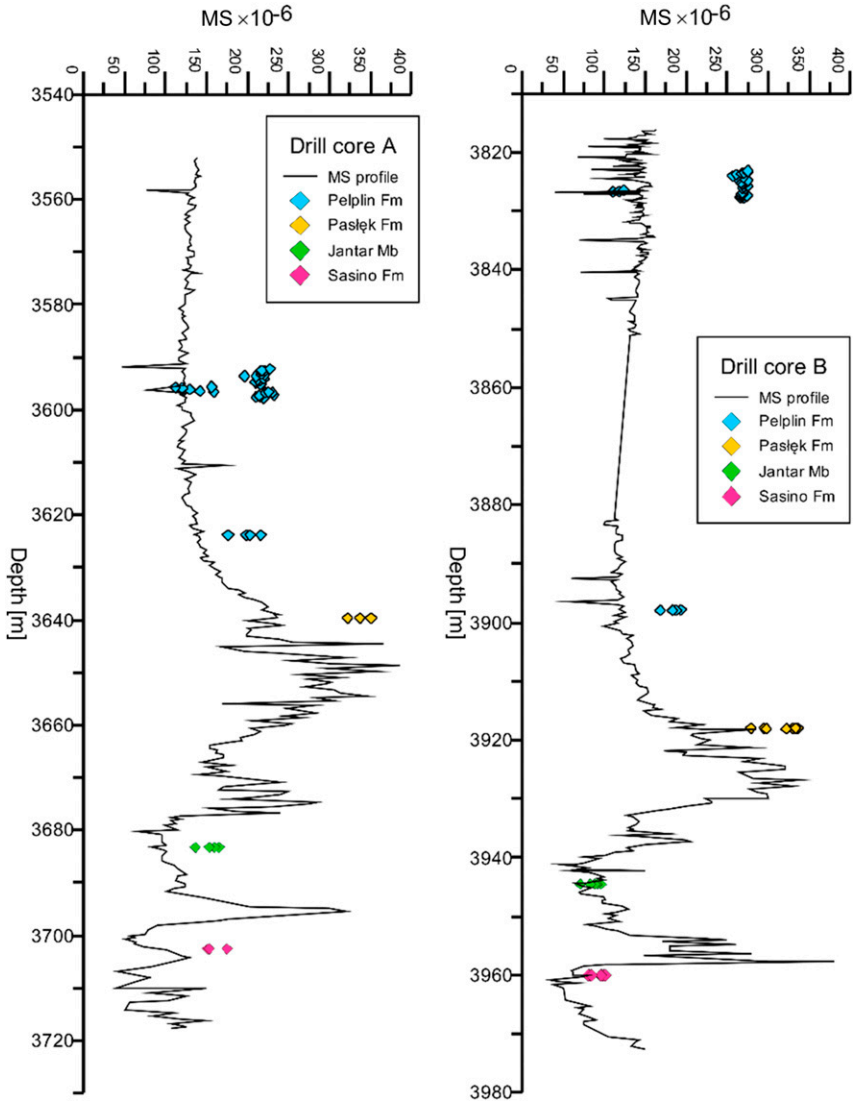

Figure S1. Correlation between measurements of magnetic susceptibility (MS) through drill core and measurements performed on cylindrical samples from several intervals collected from two drill cores, D and F. Within Pelplin Formation (blue squares), two types of samples were measured: mudstones with higher MS values and carbonate concretions with lower values of MS. Fm = Formation; Mb = Member.

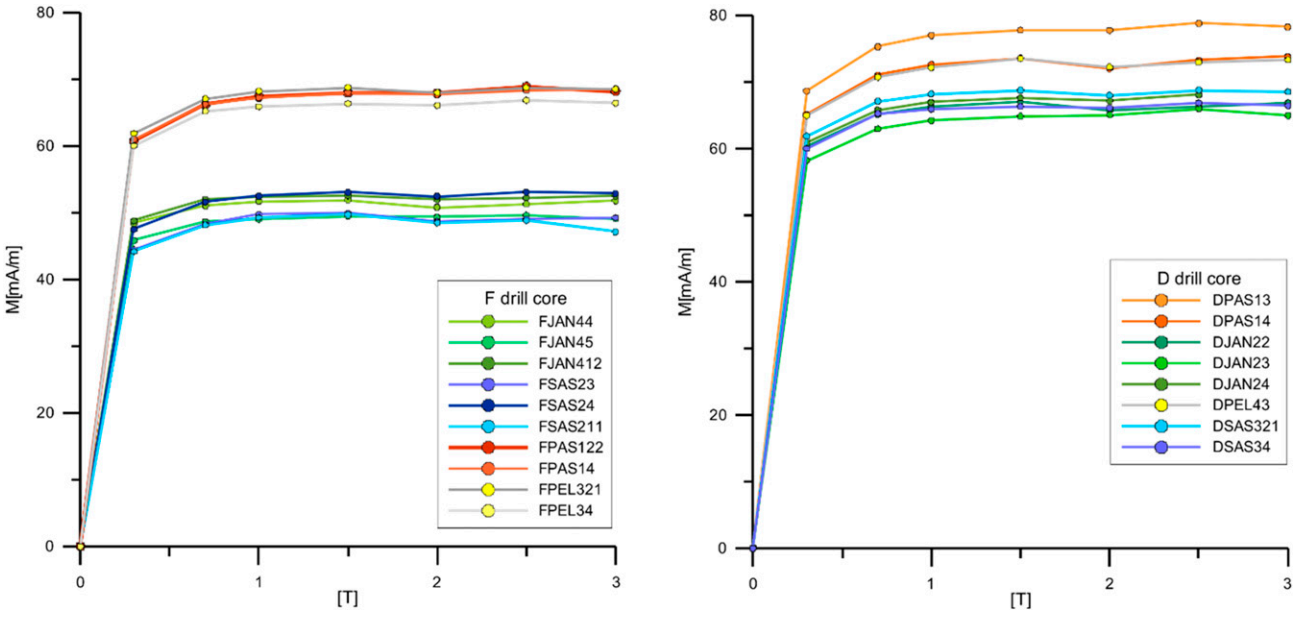

Figure S2. The isothermal remanent magnetization (IRM) results for representative samples of each formation: the Jantar (JAN, green curves), Pasłęk (PAS, orange), Pelplin (PEL, gray with yellow dots), and Sasino Formation (SAS, blue), collected from two drill cores, F (on the left) and D (on the right).

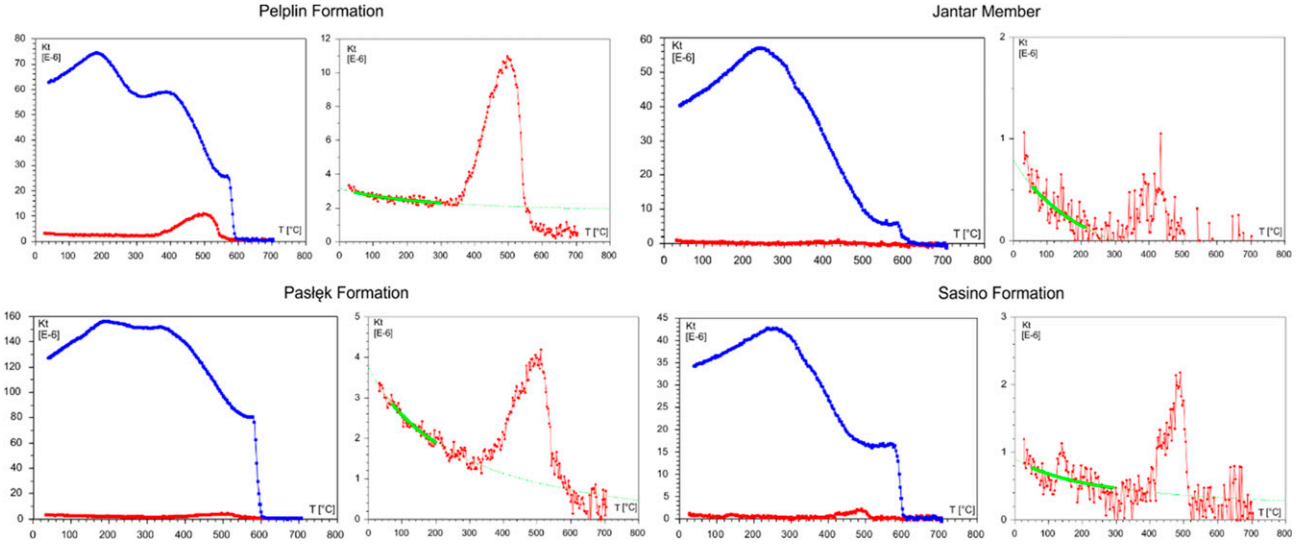

Figure S3. Typical diagrams of the temperature dependence of the magnetic susceptibility for selected samples from each of the analyzed formations with heating (red) and cooling (blue) curves. Heating curves only with temperature interval used for fitting the paramagnetic hyperbola (green) as described in the Methods section in the main text.

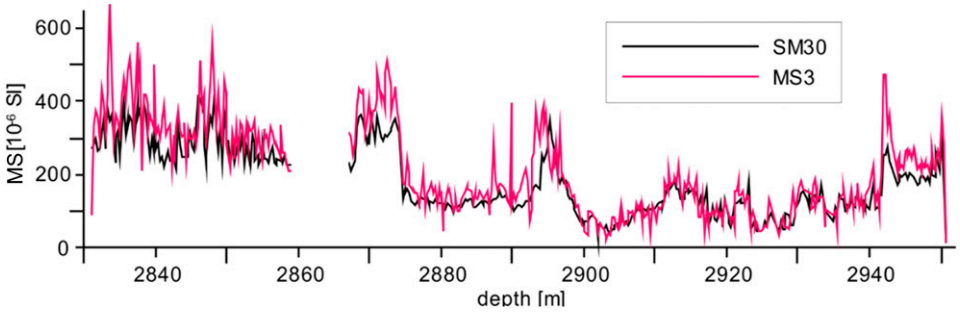

Figure S4. The results of magnetic susceptibility (MS) test showing MS logs performed independently by two devices, SM30 (Agico, Czech Republic) (black line) and MS3 sensor (Bartington, United Kingdom) (pink line), for the A drill core.

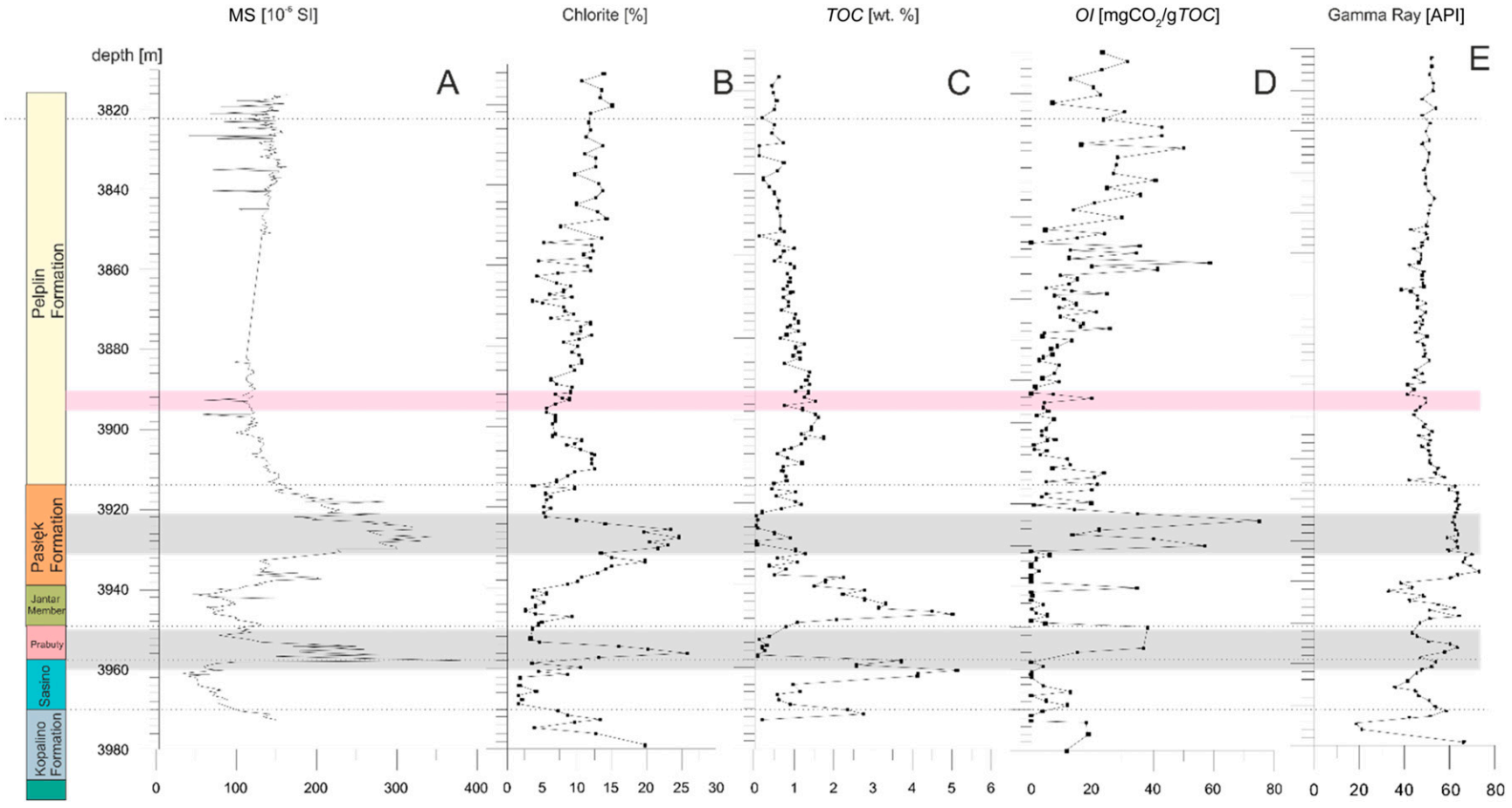

Figure S5. The correlation between magnetic susceptibility (MS) variation through the profile (A) with percentage amount of chlorite (B), gamma ray log (C), total organic carbon (*TOC*) (D), and oxygen index (*OI*) variations (E) along the profile of F drill core.

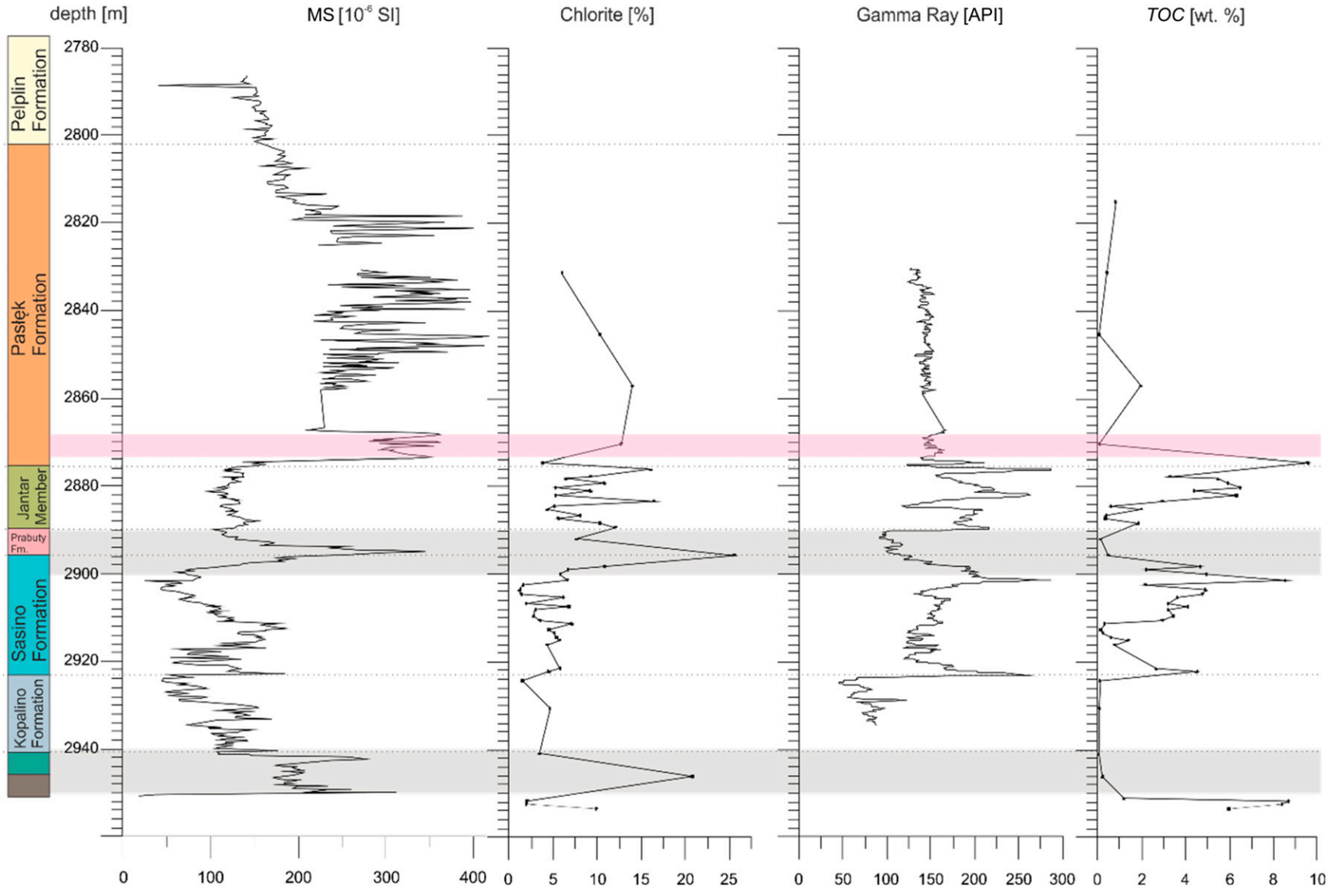

Figure S6. The correlation between magnetic susceptibility (MS) variation through the profile with gamma ray log, percentage amount of chlorite, and total organic carbon (*TOC*) variations along the profile of A drill core. Fm. = Formation.

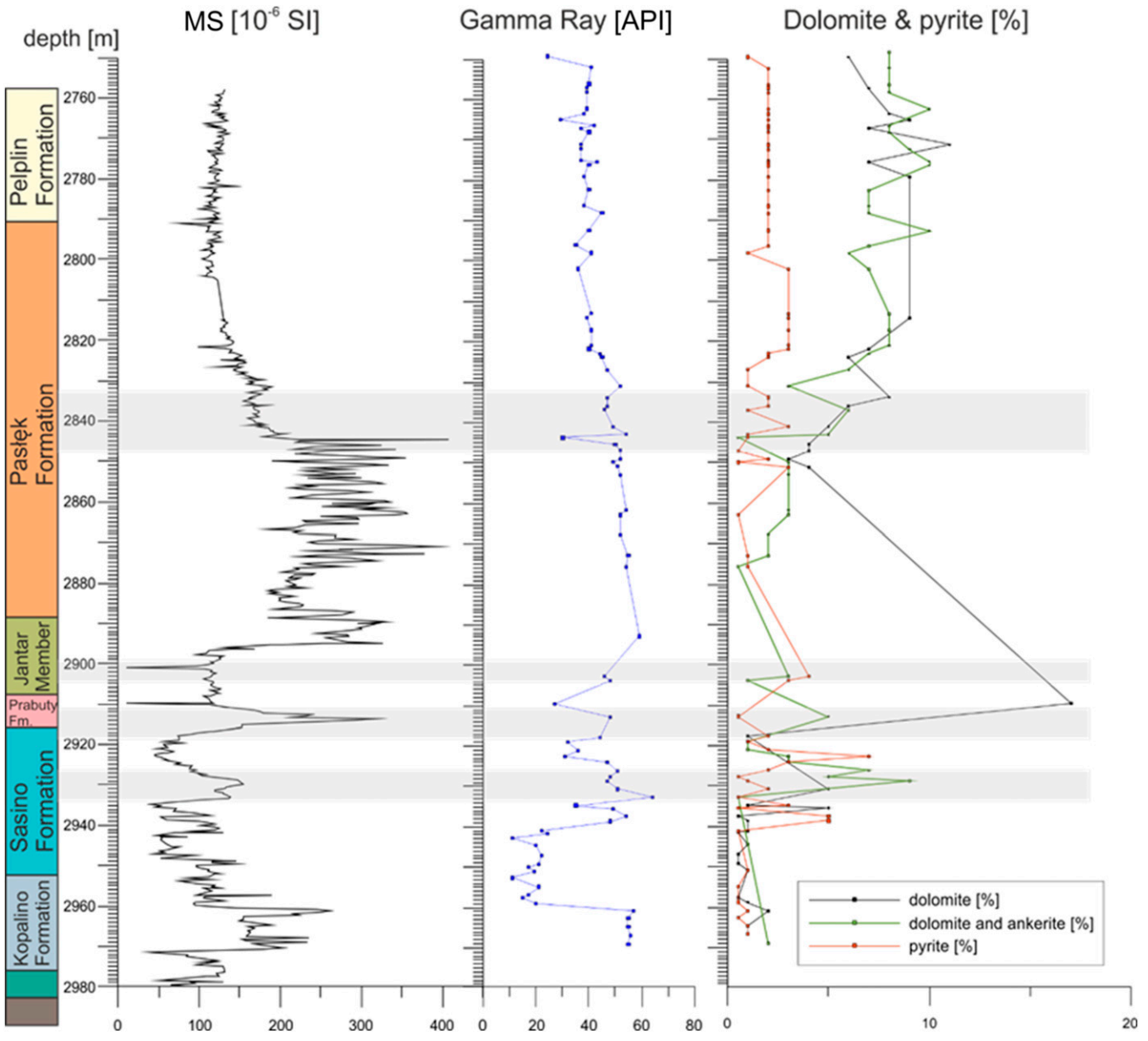

Figure S7. The correlation between magnetic susceptibility (MS) variation through the profile with gamma ray log and percent amount of dolomite, ankerite, and pyrite along the profile of drill core B. Fm. = Formation.