

How to use borehole images for sedimentological analysis: a case study from the Ishikari Group, Japan

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Approaching of lithology condition using subsurface data by borehole images has been commonly implicated for borehole condition, reservoir characteristics only but rarely used in sedimentological analysis, which is essential for well development. Sedimentological borehole image analysis using FMI is conducted on the basis of color resistivity patterns and sedimentary structures, by which variation of lithology and sedimentary processes can be detected. Color calibration between core and FMI images was conducted to compare between real data and subsurface resistivity color pattern images. FMI facies classification based on resistivity colors, patterns and sedimentary structures led to mostly the same result as outcrop facies analysis. Farther interpretation can be applied in sedimentary environment to estimate paleogeography in that area.