Fullbore Formation MicroImager: an advanced technology toward solving exploration and production problems

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The Fullbore Formation MicroImager (FMI) is the successor generation of the Formation MicroScanner (FMS) tools. It represents a considerable step forward of delivering borehole electrical imagery of higher vertical resolution (0.2") and larger borehole coverage (80% in 8.5" borehole).

The tool carries 192 resistivity buttons on four arms. Each arm contains 48 resistivity buttons that were installed on a pad and a flap. Due to its large number of resistivity curves, the tool operates only with the Digital Telemetry System (DIS) and the Maxis 500 as a surface recording unit.

During its testing phase in Malaysia, the tool shows its superiority in defining clearly the various aspects of the structural and sedimentological features that are intersected by boreholes. Integrating such information to other data, open-hole logs, cores and seismic, has resulted in enhancing our capacity in dealing with plays of complex structural and sedimentological setting.

The high resolution images prove to be of a great help in evaluating laminated reservoirs and turbidite sediments. In addition, it has been found that such images information, together with testing results, can add to our understanding of reservoir heterogeneities.

The basic limitation of this tool is related to the nature and/or mud resistivity.