Marginal Field Development Strategy: Malaysia PM304 Cendor Field Success Story

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Marginal fields are defined primarily by having either small reserves and/or reservoir constraints. Success in developing marginal fields has traditionally been achieved through a series of surface facilities and subsurface risk reduction exercises. While some oil companies appear to be less concerned about these issues due to the recent escalation in crude price, the success of any marginal field development can still be enhanced if every one of us are prepared to question the status quo of how we conduct our business; in particular, the so-called standard operating procedure (SOP). Even with crude oil price currently at elevated levels, an associated increase in the service sector and equipment costs has occurred such that potential profit margins are still difficult for marginal fields. More importantly the degree of risk is higher as the costs associated with failure are now significantly greater. Petrofac (PM 304 Malaysia) Ltd acquired the Cendor Development Sub-blocks on 6 May 2004 which includes the Cendor field. Cendor was defined as a marginal field due mainly to reservoir compartmentalization issues. Nevertheless, within 26 months from the asset purchase, this marginal field is currently producing.

Petrofac have successfully developed the Peninsular Malaysia (PM-304) marginal Cendor field asset through the traditional risk reduction exercises but moreover, by assuming a ‘contractor mentality’ approach and work program where being safe, ‘on-time’, and ‘under-budget’ was an ever present operational directive that has permeated the subsurface effort as well as the operational aspects of the project. This approach is translated into daily business activities through:

1) Challenging the Standard Operating Procedure (SOP) via ‘Nice to have’ versus ‘Need to have’ mentality
2) Diversifying the risks and adopting ‘check and balance’ through partnerships
3) Employing the right person, for the right job, at the right time
4) Maximizing sim-ops operations, where applicable

Marginal project development is like small project management – all of the same work needs to be done, but the margins for overrun in any one area are much tighter than on big projects. As such, project teams must arrive at ‘fit for purpose’ solutions in the tightest time frames possible – an integrated team approach minimizing communication and contractual interfaces is vital. Equally important is the need for personnel who can think “across disciplines”. Petrofac’s internal in depth expertise and experience, especially in Facilities and Construction, and oil and gas field operations/management help in expediting the decision-making process. These aspects of marginal field development allowed key project decisions to be made well down the learning curve while still permitting key surface and subsurface risk reduction exercises to be successfully completed. The series of innovative risk reduction efforts, surface and subsurface, and operational mentality lead to PM-304 Cendor field receiving FDP approval in record time, delivering first oil within 26 months from project conception and only after 14 months from the FDP approval, and significantly under budget. Hence, it may be time for some companies and key individuals to challenge the relevance of each step of their standard operational procedures.