

Talk on “Field Development Plan: How Reservoir Engineers Add Value”



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ON 11 June 2011, a talk entitled “Field Development Plan: How Reservoir Engineers Add Value” was presented by Cik Allida bt. Mohd. Said of Energy Quest. Cik Allida started the talk by explaining about the work that petroleum engineers do. ‘Petroleum engineer’ is a general title given to a group of engineers each with their own special expertise. This group includes reservoir engineers, drilling engineers and production engineers.

The responsibilities of the reservoir engineer in maximising field recovery and optimising production include determining how the hydrocarbon would be extracted (depletion plan scheme), optimising well placement and selection of well types (gas well, oil well and water injection well among others). The speaker pointed out that the responsibilities of the reservoir engineer differ at the engineering and production/operation stages of the reservoir lifecycle.

The concept of a field development plan (FDP) was introduced. The definition proposed was ‘an efficient and profitable plan to develop hydrocarbon accumulation where reserves are maximised and production is optimised

incorporating innovative and safe well and facilities designs’. A timeline of an oil field lifecycle was also presented, showing the stages which are included in an FDP. Samples of the various tools used to build an FDP were presented. Among the type of tools mentioned were tank simulation models and static/dynamic segment models. A field development plan also requires considering the layout and configuration of the topside facilities for budgeting and selection purposes.

Cik Allida presented the makeup of a team that prepares the FDP. The point stressed was that the team is made up of a diverse group of expertise, which is integrated to provide a coherent structure that can contribute effectively into the development of an FDP. Among the people needed for an FDP team apart from the reservoir engineers are the facilities engineers and the economists.

Cik Allida ended her talk by describing the career opportunities and expectations of a reservoir engineer. The key areas that a reservoir engineer may want to include in his or her career would be reservoir studies, economics and planning, reservoir surveillance and coordination. ■