



SPE 71671

Extreme Overbalance Perforating and One-Trip Perforate and Gravel Pack-Combination of Two Techniques for Successful High Rate Gas Well Completions in the Ha'py Field

E. Harold Vickery, SPE, Leo E. Hill, SPE, Baker Oil Tools; Victor Forgenie, SPE, BP; Roger McCollin, SPE, Hydrocarbon Outsource Ltd.; Helmy Fahmy, GUPCO; Carl H. Butler, SPE, BP; and Omar Y. Mohamed, SPE, Baker Oil Tools

Copyright 2001, Society of Petroleum Engineers Inc.

This paper was prepared for presentation at the 2001 SPE Annual Technical Conference and Exhibition held in New Orleans, Louisiana, 30 September-3 October 2001.

This paper was selected for presentation by an SPE Program Committee following review of information contained in an abstract submitted by the author(s). Contents of the paper, as presented, have not been reviewed by the Society of Petroleum Engineers and are subject to correction by the author(s). The material, as presented, does not necessarily reflect any position of the Society of Petroleum Engineers, its officers, or members. Papers presented at SPE meetings are subject to publication review by Editorial Committees of the Society of Petroleum Engineers. Electronic reproduction, distribution, or storage of any part of this paper for commercial purposes without the written consent of the Society of Petroleum Engineers is prohibited. Permission to reproduce in print is restricted to an abstract of not more than 300 words; illustrations may not be copied. The abstract must contain conspicuous acknowledgment of where and by whom the paper was presented. Write Librarian, SPE, P.O. Box 833836, Richardson, TX 75083-3836, U.S.A., fax 01-972-952-9435.

Abstract

The Extreme Overbalanced Perforating (EOB) technique has been successfully applied in a variety of locations around the world both in 'hard rock' and 'soft rock' formations. In certain applications, it offers definite advantages over other perforating techniques. One-Trip Perforating and Gravel Pack technology also has been successfully applied at various locations with definite advantages over other 'soft rock' cased hole completion techniques. Prior to the completion of three wells in the Ha'py field, these two technologies had never been applied concurrently.

This paper describes the teamwork that was required between the operating company and the service providers to properly combine these methods and ensure their successful application in the field. The authors outline some of the obstacles encountered and describe how the tools and procedures were designed for success.

During the three well completions in the Ha'py field, some problems were encountered that required modifications to operations. The lessons learned from these problems and how they were applied to subsequent operations are also addressed.