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WellDynamics/Halliburton Install First Intelligent Well Completion for Shell Mars Project in Gulf of Mexico

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HOUSTON--(BUSINESS WIRE)--Aug. 10, 2004--WellDynamics and Halliburton have successfully finished the first installation of an intelligent completion in the Mars field for Shell Exploration & Production (Shell) in the Gulf of Mexico.

Completed off the Mars Tension Leg Platform in 2,940 feet of water, the Mars A-16 injection well represents the application of a number of new technologies for Shell in the Gulf of Mexico. These include the use of SmartWell(R) intelligent completion equipment; the first vertical, open-hole gravel pack; and the first use of 55 percent formic acid.

WellDynamics' Direct Hydraulics(TM) flow control system with Accu-Pulse(TM) module was used to control water injection into the zones to ensure sweep efficiency; and a combination of Halliburton technology was used to provide the open-hole gravel packing for the lower interval and stimulation services for the project.

The WellDynamics Accu-Pulse control module provides a simple, reliable and cost-effective method of adjusting downhole interval control valves in multiple incremental positions to regulate water injection between the upper and lower zones. The Mars A-16 project was the first use of a multi-position interval control valve deployed by Shell.

The interval control valve is hydraulically actuated by WellDynamics' Surface Data Acquisition and Control System (SDACS(TM)). The SDACS system is integrated with the Mars TLP distributed control system to enable controlled distribution of water injection between the two reservoir intervals.

Halliburton's completion effort combined the use of its Versa-Trieve(R) packer system, MCS closing sleeve and all-welded wire wrap screen. To ensure the longevity of the equipment during the well's life cycle, specialized corrosion-resistant alloys were utilized in both the completion equipment and the production screen. Additionally, Halliburton's pressure maintenance system was used in the completion of the open-hole section. This system has the ability to maintain positive pressure on an open-hole section throughout every phase of the packer running, setting and treatment procedures.

Although the system is typically used in open-hole horizontal completions, its ability to adapt to an open-hole, vertical completion allowed for the successful treatment of the zone of interest. At the conclusion of the stimulation, multiple trips were made to remove the open-hole filter cake. The operation was carried out using a 55 percent formic acid recipe.

WellDynamics BV, a joint venture between Halliburton's Energy Services Group and Shell Technology Ventures, is the market leader in intelligent completion technology. The company uses advanced intelligent well technology to deliver premier solutions for surface controlled reservoir monitoring and management of multi-zone and multilateral wells. In addition to operations in Houston and Aberdeen, WellDynamics has a manufacturing plant in Livingston, Scotland, and sales teams and operations in Norway, Brazil, Italy, Dubai, Malaysia, Brunei and Australia. For the latest information and updates, please visit the Web site at: www.welldynamics.com.

Halliburton (NYSE:HAL), founded in 1919, is one of the world's largest providers of products and services to the petroleum and energy industries. The company serves its customers with a broad range of products and services through its Energy Services and Engineering and Construction groups. The company's World Wide Web site can be accessed at www.halliburton.com.

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