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## **Codeon Announces Multiflo-Simulator software for Oil and Gas Production teams**

### **Multiflo-Simulator brings continuous Dynamic Well Behaviour Simulation to Exploration and Production Industry**

May 14, 2004, DORTMUND, Germany, -- Codeon GmbH, a consulting company and provider of applications and services, today announced a new product called Multiflo-Simulator(TM) for oil and gas customers. Starting from this day, Codeon will provide a unique software product to reduce operating costs, increase certainty in completion investment opportunities and optimize production.

The tool has been used to perform continuous analysis of production test data to derive critical well data. The differentiator of this dynamic flow simulator is that start up, steady state data and even shut in data is used to derive critical well information in the dynamic flow simulator. The interpretation of this well data increases the certainty in derived well parameters and enables the customer to make more informed investment and reservoir surveillance decisions.

### **The Advantages of Codeon Dynamic Wellflo Modeling**

One of the main differentiators of the tool is its unique dynamic well modeling functionality. The Codeon software uses industry standard PVT models, inflow performance relationships, multiphase flow models and special code for various other mechanisms ongoing in the well, not modeled by standard steady state software models. This allows the simulator to be used for various applications, some of which are listed below:

#### Production Optimisation

- Monitoring of reservoir pressure, skin and productivity index trends (Semi continuous).
- Modelling of dynamic well behaviour to calculate exact artificial lift requirements (even more so on marginal wells).
- Determining the conditions under which wells will exhibit unstable flow or lazy well behaviour important to economically select which artificial lift method is required and when it is required.

#### Flow assurance

- Modelling steady state, shut-in and start-up flowing conditions (that effect scale deposition, solids lift, hydrates, erosion and corrosion).
- Modelling of unloading behaviour to quantify the amount of gas, diesel (future option) and nitrogen required to kick off newly completed wells.

#### Well Integrity

- Calculation of critical data for well mechanical design (maximum well life time shut-in pressures, maximum transient wellhead temperatures).

- Critical unloading conditions for ESPs (future option), gas lift and jet pumps to determine artificial lift requirements and allow optimal pump selection.
- Gas lift equipment problem identification (future option)

### **Economic benefit**

Apart from using the simulator to make more informed and better investments in well integrity decisions, the simulator has been used effectively to reduce costs and risks associated with reservoir surveillance.

The Codeon Multiflo-Simulator can be used to derive critical formation parameters such as reservoir pressures and PIs where wells do not have downhole monitoring equipment. With the reduction of well interventions to gather the necessary data and with the continuous derivation of reservoir pressure and productivity index data derived by the Codeon Multiflo-Simulator, great savings can be realized. A company that used this approach during the test phase of the simulator was able to save millions in immediate production costs.

### **Availability and Pricing**

Multiflo-Simulator is available for immediately on [www.multiflo-simulator.com](http://www.multiflo-simulator.com). All pricing and licensing information is also available at that site.

### **About Codeon**

Codeon GmbH develops innovative internet technologies, network infrastructures and software for the oil industry. Thorough work experience with Internet technology, networks and engineering software development in connection with close customer collaboration ensure efficient and individual solutions. Additional information can be found at [www.codeon.de](http://www.codeon.de).

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