



SHELL Upgrades to High G's on DIAMOND OFFSHORE'S OCEAN CONCORD

Recoups Upgrade Costs in 13 Hours

Shell Deepwater tested a Derrick® Flo-Line Cleaner 2000™ 4-panel shaker with high G motors and a LCM-2D™ on the Diamond Offshore Ocean Concord. Both of the shakers were installed directly on the flow line, downstream of a dual tandem scalping shaker. After approximately two months of comparing the performance of the two shakers, evaluated throughout a variety of drilling conditions, the Derrick FLC 2000 proved to be the superior machine. After seeing the advantage of a high G force shaker, Shell and Diamond Offshore had the LCM-2D™ shaker removed from the rig and proceeded to upgrade the two existing Derrick Flo-Line® Cleaner AWD shakers to high G's. Each machine was outfitted with a simple upgrade kit, consisting of two (2) Derrick MX-30 high G motors and a new 3-panel screen frame designed to accommodate the increased vibratory force.



**Flo-Line Cleaner 2000™
3-Panel Upgrade Kit**



Test Results

In order to evaluate the shaker upgrade, Shell and Diamond compiled the following comparative mud analysis from drilling a similar 4861 foot hole section on two successive wells. The original shakers operated at 5.25 G's while the upgraded high G shakers operated at 7.0 G's.

	Original G Shakers (5.25 G's)	Upgraded High G Shakers (7.0 G's)
Total mud lost:	11.23 barrels / hour	4.91 barrels / hour
Mud cost per foot:	\$ 26.76	\$ 11.72
Total mud cost:	\$ 130,056.00	\$ 56,959.44

TOTAL MUD SAVINGS: \$ 73,096.56

SUMMARY

The Derrick High G upgrade enabled the shakers to be screened up from DX™ 175 mesh to 210 mesh Derrick Pyramid® screens due to increased handling capacity. By screening finer while processing the same flow rate, mud costs were subsequently reduced by over 50%. Because synthetic oil-based mud was used for this well, the cost savings were substantial. After calculating the savings per foot and the time it took to drill this section of hole, it was determined that Shells cost for the entire shaker upgrade was recouped in just over 13 hours.

An Integral Part of the High **G** Solution



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