

Special Report GLOBAL OUTLOOK

Dissecting the drilling market—by land, offshore,
energy supply, Wall Street and census numbers

The Land Market:

Despite less-than-optimistic short-term factors, natural gas outlook remains bullish in long term

ON THE SURFACE, things aren't looking so good for the land drilling business. In October, natural gas prices dropped to their lowest level in 2 years. Storage levels are running high at more than 3,000 BCF. And there are still worries that the more than 600 new rigs coming into the market in 2005-2007 will mean an oversupply and softening dayrates.

But don't let those short-term noises drown out the upbeat long term, said **John Lindsay**, executive vice president-US and international operations for **Helmerich & Payne International Drilling Co.**

"The short-term outlook for natural gas may have been better earlier this year," he said, "but the long-term view is still very bullish if energy demand fundamentals remain strong."

Rig demand remains strong as E&P spending continues to rise. While there are challenges – for example, drilling unconventional gas plays and mature areas are getting more technically difficult – the industry has begun a massive retooling effort with new and improved rigs. These trends show that if you get past the short-term dynamics, things start to look up again, he said.

INDUSTRY TRENDS

First, E&P spending remains strong. Mr Lindsay referred to a **Lehman Brothers** survey indicating that \$50 billion was spent on oil and gas exploration and production in the US in 2005. A survey taken in December 2005 showed that, at the time, 2006 spending by the same companies was expected to increase to about \$57 billion. It wasn't long after that when concerns began to mount over gas prices and storage overhang as a result of a very mild winter, on top of recession and geopolitical worries.

However, what appeared to be a growing unease did not translate into a negative impact on spending



Helmerich & Payne IDC is currently in the process of building 66 FlexRigs. All have at least a 3-year contract.

forecasts. A new survey by Lehman Brothers taken in June 2006 showed that E&P spending forecasts had actually gone up once again, from \$57 billion to nearly \$64 billion. "In general, drilling contractors have not seen operators backing down or slowing drilling programs," Mr Lindsay said. "Operators also continue to show interest in newbuild contracts, even in this natural gas environment." Thus, even though rig demand continues to be strong, it will be interesting to see how the E&P spending trend is impacted by the recent softness in natural gas prices.

Another unquestionable trend in the industry is that drilling has become more difficult. The number of directional or horizontal wells, which often put more burdens on rigs and even crews, increased by a factor of 2 from May 2002 to May 2006, Mr Lindsay said. Nearly 40% of the total US land fleet is now engaged in directional or horizontal wells.

"Take, for example, the Colorado market as a sample of the very rapidly growing unconventional drilling market. According to **Smith International's** rig count, the industry has gone from 1 rig drilling non-vertical wells in 2002 to 63 rigs earlier this year. We're seeing the similar trends in the Barnett Shale

and other unconventional plays," he said.

The increase in unconventional plays appears to be driving operators to demand more capabilities and higher efficiencies out of the rigs they contract. At H&P, nearly 60% of its advanced technology FlexRigs — which are equipped with AC drives and PLC controls; electronic driller controls; and top drives — are being selected for more difficult directional drilling operations. "They're better outfitted to do directional and horizontal work, and they can control bit dynamics and downhole conditions much more effectively," Mr Lindsay said.

INDUSTRY RETOOLING

The massive retooling effort that the industry began in late 2004, which was kickstarted in part by rising activity levels, will continue at least through 2007, he said. By the end of next year, 370 newbuild rigs and 250 refurbished rigs are expected to have entered the market, pushing the total US land **Baker Hughes** rig count to about 2,000 units. About half of those 370 newbuilds will be advanced technology rigs, the other half conventional designs. However, newbuilds and refurbished rigs will still make up only about 27% of the total fleet, Mr Lindsay pointed out. This means that 73%, or between 1,200 to 1,400 units, will be old rigs — part of the legacy fleet that was built nearly 30 or even 40 years ago.

"There will undoubtedly be attrition. The question is how much," he said. "Frankly, none of us know. It depends on how much operators support the retooling effort, which will hinge on a couple of factors. One is how gas prices fare. Two is the performance of these advanced technology rigs compared against the older fleet. If they perform better, and I think they will, there will be a period of high-grading rigs by performance," he said. "Operators will want to make sure the rigs they keep are the best ones out there."

Some rigs will be forced into retirement because they can't deliver the value that operators want."

OVERSUPPLY? MAYBE NOT

So, with an aging fleet that needs to be replaced and continued high rig demand, there is a reasonable chance that the projected 20% rig count growth by the end of 2007 will not lead to an oversupply, Mr Lindsay said.

Adding to his confidence is the US gas production picture. The number of US land rigs drilling for natural gas has been doubled since 2002, yet total US gas production has been on a downward trend since 2001.

"That's a powerful statement, and it gives us a relatively positive picture of the long term," he said.

In fact, depending on how attrition numbers work out, there may still be opportunities for more newbuilds. "It's all about newer technology and better performance, so I believe operators will continue to sponsor newbuilds."

Looking 5 to 10 years into the future, Mr Lindsay believes that advances in com-

puter technology will make significant contributions to rig capabilities.

"Rigs will be able to make drilling decisions based on data generated downhole on a real-time basis to drill wells more efficiently. We're just starting to scratch

the surface with smart systems that enhance drilling performance, and you can't do that with conventional rigs," he said. "I believe that's what the future is going to be. It's going to take a lot of work, but the prize at the end is pretty substantial." 💧

The FlexRig story

Beginning with the recognition of an opportunity in the marketplace to apply new technology in 1998, Helmerich & Payne IDC built 6 of its newly designed advanced technology FlexRigs that year. In 2001-2004, it built 44 more. Today, the company is in the process of building 66 FlexRigs. All have at least a 3-year contract. About 34 of those 66 are expected to be delivered by the end of 2006; the rest will be completed in 2007.

According to John Lindsay, executive vice president-US and international operations for H&P, the company has seen a trend of its FlexRigs being selected over older rigs for tough directional/horizontal work. Demand has been strongest in the Barnett Shale, East Texas and the Rockies area, including Wyoming and northwest Colorado.

Mr Lindsay pointed out that when the newest 66 rigs are complete, 75% of H&P's 155-rig US land fleet will be "essentially a new fleet." "I'm not overly concerned about the short-term natural gas pricing because even if the market takes a dip, our FlexRigs will continue to be busy," he said. "Contractors aren't worried about putting their best rigs to work. It's the older rigs that are harder to place when the market softens." 💧