International demand could strain US rig supply

DENNIS A SMITH, Director of Corporate Development for **Nabors Industries, Ltd**, said the E&P industry will put its emphasis on low cost, low risk prospects. As cash flow continues to meet expectations operators will begin to investigate higher risk and higher reward prospects.

Mr Smith believes that rig pricing will likely lag historical utilization inflection points. However, he also said that the up cycle will last a good while, 6-8 years, "setting up nirvana for all of us, particularly on the land side."

"International demand will likely strain the North American rig supply and demand balance for 1,500-2,000 hp rigs over the longer term, particularly for the Middle East and Mexico on the deep land side. There are a few rigs internationally but not enough to satisfy the demand.

A NEW CYCLE

Nabor's view is that the industry is at the beginning of another cycle. The company believes, however, that activity will not be quite as frenzied as before. When the market rolled over quickly in 1997 all the E&P companies were pretty heavily leveraged, and the Wall Street investors clearly told them that if they didn't begin earning the cost of capital, then they wouldn't be getting capital again.

"This had the effect of raising capital discipline," Mr Smith said, "and I think it's something that is going to stick."

"As a result," he continued, "the spending patterns will be more gradual and more orderly but will last a lot longer because capital discipline has been instilled in the E&P sector."

NATURAL GAS

Mr Smith said in today's market the industry is not facing a gas bubble but rather a cash bubble. Exports to Mexico from the US have doubled during the past year to about 1 bcf/d year over year, he noted, and it is going to continue increasing.

The US and Canada together constitute about 75 bcf/d on the demand side. However, if demand is examined alongside decline rates presently in excess of 28% and that are expected to be more than 30% in 2004, maybe as high as 33%, according to Mr Smith, that implies about a 20 bcf/d decline rate that has to be made up.

There is a lot of stranded gas in the world that could find its way to the market from sources such as deepwater, the McKenzie Delta, Alaska and LNG.

In the intervening period, he believes that North American drilling, including land and offshore but probably focusing more on land, is going to be the only real source of generating any incremental gas supply over the next 10 years.

"Ultimately LNG will probably trump the whole thing someday," Mr Smith said.

There are other sources coming on sooner, he noted. However, he explained, the problem is LNG won't be setting the market price until it is big enough in meaningful volumes to set the market price.

"Ultimately it will be large enough and people we talk with say it looks like it's at least a decade away."

"I don't think it's a given that we will never have LNG demand in the US."

OIL

Oil is not a too dissimilar equation, Mr Smith noted. Nabors is a large contractor in Saudi Arabia, and he said that Aramco has been talking about a 10-12 rig bid.

"I think we are going to see a lot more intensive drilling to maintain their production and to continue to grow if they can."

"We have been running two exploratory rigs in Saudi Arabia for six years now just looking for gas," Mr Smith said, "so I think the same fingerprints are there for oil in places like Russia that are going to be very strategic in the world oil picture in time."

On the supply side, there are a lot of ageing oilfields that are declining, including fields in the North Sea, Alaska's North Slope, the lower 48 in the US, Latin America and the Middle East.

There are prospects for new oil supplies. These include deepwater in the US Gulf of Mexico and offshore West Africa, new exploration and development in the Middle East and rehabilitation and new developments in Russia and the Former Soviet Union states.

On the demand side of the equation the industry has experienced oil prices in the high $20 to low $30 average for the last three years, Mr Smith noted, along with weak gross domestic product (GDP), yet oil demand has grown a million barrels a day each year.

US LAND RIG UTILIZATION BY DEPTH
2003 VS. 2001

WELL DEPTH	# RIGS July-01	PERCENTAGE OF 2001 RIGS OPERATING March-03	July-03	Sept-03
0 - 7,499	230	101%	126%	125%
7,500- 9,999	233	90%	93%	90%
10,000- 12,499	247	81%	79%	86%
12,500- 14,999	245	68%	82%	78%
15,000 +	159	71%	74%	75%
PERCENT	---	83%	92%	92%
TOTAL RIGS	1114	920	1022	1022

Source: The Land Rig Newsletter, Rig Data

Excludes: Alaska, California & U.S. North East States

"Oil demand is 3 million barrels per day higher now than it was in 2001," he said, "so even at $28-$30 oil we are not killing demand."

Mr Smith said most of the oil demand is in China with a huge infrastructure and development projects going on throughout the country.

SPENDING PATTERNS

Customer spending patterns is the third element. Nabors divides the players into majors and public independents and the private independents referred to as the checkbook drillers.

"They have been very active in this cycle in North America," Mr Smith said, "and have kind of driven the rig curve. It's the natural beginning of the cycle."

However, the majors have taken a different attitude. They have been virtually absent from the North American market this year, with only about half the activity they had in 2001 and only modestly higher than in 2002. The majors have a lot of alternatives for their capital that a lot of other operators don't.

"What's happened with the majors is their assets have matured and are declining," Mr Smith explained. "They harvested the fields."

"No matter how much capital they put into those assets, they are not going to make their existing assets a large enough impact in a global market."

It is harvest time for the majors, he explained, and they have three options. First, the majors are going to become busier. The second option is they will begin selling the properties. The third option is farming out the properties to other operators.

"Those are the three options," Mr Smith said, "sell, farm out or drill. We have seen evidence of all three."

Independent E&P companies are at the margin of what is keeping the business at an orderly pace. A lot of them are bullish on the price of gas but are trying to spend within their cash flow.

One of the main legitimate pacing mechanisms is their limitation on geological and geophysical talent and manpower, which affects their ability and their pace in which they can generate a prospect.

"What price are you going to use as your forward paying price to make prospects economic and at what pace do you develop these assets?" Mr Smith asks.

One operator is having very good success in southern Oklahoma with very deep gas but it takes about four years to develop those prospects and multiple man years, 8-12 man years, of geological and geophysical time. So the operator not only has to have the conviction of what it thinks gas prices are going to be 3-4 years from now but what it's going to be for the 3-4 years after that to achieve payout.

"That's what is keeping the lid on accelerating activity," Mr Smith said. "I think that over time that means that work is going to progress in a gradual and orderly manner."

LAND RIG CYCLE

The rig count has been up relatively sharply but it's begun to flatten. Mr Smith believes the rig count will continue to increase. In August 2000 Nabors was running about 180 rigs, which was nearly all that it could put to work although they had numerous rigs in their inventory. At that time the Baker Hughes rig count was about 850 land rigs, which was effectively 100% capacity at that time, according to Mr Smith.

Since then, he said, the industry added at least 250 rigs. Nabors activated and upgraded about 130 units, **Helmerich & Payne** built about 50 of its Flex rigs, and other contractors brought rigs out of stack condition. The same inflection point of 100% effective utilization is probably in the 1,100-1,150 rig range, Mr Smith noted, but there are more rigs in the fleet. He thinks the pricing slope is going to be a lot more gradual than during the last cycle, but it is going to be continuous as customers continue to converge their reinvestment ratios, which still today is 60-75% of cash flow, against where they have the conviction of where price is going to go.

"That means that things are not going to get to the frantic pace again, we are not going to get a short sweep on rigs and we will see prices moving in a more moderate fashion," he concluded.

RIGS AND NATURAL GAS

There are a lot of incremental new technologies and more rig intensive technologies being applied to existing resources such as horizontal drilling, reducing well costs and getting more productive capacity out of each well. That results in fewer but more sophisticated rigs, and larger units with higher horsepower.

Those types of rigs are needed to increase incremental natural gas reserves, which are found in deeper and more complex horizons with higher risks, and in more remote and less accessible locations.

PROSPECTS

A statistic that was presented by oilfield research and analysis firm CIBC World Markets in a conference earlier this year shows that there have been roughly 2.5 million wells drilled since the very first well by Col. Drake. Less than 7% have been below 10,000 ft and less than 1% were below 15,000 ft.

"That's where some of the big gas plays are," Mr Smith said, "so I think there is no lack of prospectivity, it's a matter of the pace at which you can develop the prospects given the lead times and the intensity of G&G and the risk/reward ratio."

"As the risk increases and the reward increases," he continued, "the activity will gradually increase with time and cash flow. Ultimately a lot of the problems we have with well costs and success rate, G&G, capital, rig sophistication, those will change as we go."

RIG UTILIZATION

In 2001, the peak of activity, the industry was running 230 rigs capable of drilling to 7,500 ft. Today the industry is at 125% of that activity.

"This is where you see the beginning of the cycle, and a lot of ramp up of activity in the shallow and lower risk areas," Mr Smith explained.

The middle depths, 7,500-15,000 ft, haven't started moving although there is some evidence of the larger, deeper rigs making progress in the last few months.

That's typical of Nabors' rig count, which went up by about 40 rigs until the rig count flattened in the last five months. ■