## DRILLING CONTRACTOR



## **DRILLING AHEAD**

## In energy and medicine, scarcity drives desire—and pricing

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"It's tough to make predictions, especially about the future."—Yogi Berra

**ENERGY IS LIKE** flu shots. People only care about it when they can't get it. The rage for flu innoculations will likely diminish with the passing of the contagious season. But the global thirst for energy shows less seasonality, to say nothing of slackening growth. Energy was a topic in a recent edition of *USA Today*, the newspaper skeptical of the possibility of US energy independence. While the paper, printed on the eve of the US Presidential election, quotes only naysayers, it does make a pertinent point: Politically, energy may not win many votes, but it sure can cost them.

Meanwhile, day-to-day events and nonevents alike drive the market. A threatened 16 Nov strike by Nigerian unions was anticipated to spike oil prices, but didn't. An optimistic report on heating-oil supplies should have tempered prices and did.

These routine events are but noise on the larger trend. And I am not heedless of the sage advice of the tumble-tongued US sports legend quoted above. I will not go gently into that good night of daredevil forecasting.

But I will cheerfully let others do so. Oil prices currently are flirting with \$60. However, in the "medium term", Sir John Brown, Chief Executive of BP, recently predicted a \$30/bbl oil price, assuming no catastrophic supply disruptions. That's a big "if" in these turbulent days. The security factor already plays a heady role in oil price reckoning.

\$30/bbl marks a pretty good target, negotiating a narrow tightrope—high enough to encourage development, yet low enough not to stifle demand and economic recovery. Ultimately \$60-plus oil is our own worst enemy.

As Sir John points out, the industry has responded vigorously to the exceptional

oil consumption of the last year, in China and around the world. Production grew by 2.7 MM bbl/day in 2003 and is expected to expand another 3.4 MM bbl/day this year, according to BP. That latter increase is the fourth largest annual increase in history, representing solid growth in OPEC production—close to an all-time high—and non-OPEC oil alike.

Nonetheless, BP will stick to a \$20/bbl Brent oil price for planning E&P activity, according to Sir John.

In the longer view, though, where will the energy supply/demand equation drive prices? The apostles of scarcity point to maturing of the world's largest reservoirs, lack of significant new finds, and inexorably increasing demand as factors inevitably driving us toward inevitable exhaustion of hydrocarbon resources.

More optimistic voices dispute that. **Saudi Aramco**, for instance, contends the Kingdom can "sustain daily crude production levels of 10, 12 and 15 MM bbl/day through 2054 and beyond".

This may well be so. The question is, "At what price?" That is the next wrinkle. The inquiry, "How much oil remains?", begs the question, "At what price?"

Or, phrased mathematically:

 $\mathrm{Qoil} = \mathrm{f}(\$)$ 

where Q<sub>oil</sub> is the quantity of the planet's ultimate recoverable oil

(I just love equations, don't you?)

An article in this edition examines the price/resource relationship (p 22). As prices rise and low-hanging fruit exhausted, we can drill down the "resource triangle" to unconventional sources, tight sands, heavy oil and eventually, gas hydrates and oil shale.

Energy-wise, the abundance of unconventional sources is the proverbial light at the end of the tunnel.

Price-wise, though, the world will not appreciate that light being the headlight of an oncoming train.

