

# ON POINT

Vol 1, No. 2 October 2006



GORDON ENERGY SOLUTIONS

## Candid, Forward-Looking Analysis of the Oil & Gas Industry

### IN THE NEWS

#### Gulf of Mexico –

The Gulf of Mexico continues to become an increasingly international arena for investment.

The latest illustration of this ongoing process is provided by the Hess/Maersk farm-in agreement.

#### Global Competitor Initiatives in North America –

Both Shell and ConocoPhillips have announced major moves to consolidate or expand positions in Canada. Shell announced a US\$6.8 billion plan to acquire the remaining shares of Shell Canada it does not already hold.

More significant in terms of net impact is the ConocoPhillips and EnCana integrated oil sands alliance which is discussed in more detail in this issue.

#### Lukoil Aspires to Global Status –

In a recent presentation Lukoil underlined its commitment to joining the ranks of the Global Competitors. The company increased its boe production growth target from an average annual rate of 4.5% to 6.7%. Moreover, Lukoil affirmed its intent to achieve its goals through natural gas and through international operations.

#### Taxes & Policy –

In a continuation of tightening tax and licensing terms, the Algerian National Assembly modifies petroleum taxes and Sonatrach rights.

There are two key provisions of the new law. First, the government reverses itself on Sonatrach participation requirements. Future contracts require a minimum 51% participation. Second, an additional tax, a “windfall” tax will be imposed whenever Brent exceeds \$30 per barrel. The rate of tax can vary from 5% to 50%.

We cannot fully evaluate the changes until further details are made available. However, it is likely that the “windfall” tax will function as an add-on, non-deductible royalty.

#### North American Expansion Initiatives

Shell and ConocoPhillips both announced significant changes in their North American programs.

Shell plans to purchase the remaining shares of Shell Canada it does not already own. This is an important move to (1) reorganize the company’s North American operations and (2) distribute nearly US\$7 billion in capital in the process.

The share repurchase does not, however, fundamentally alter Shell’s global strategy or asset base.

By contrast, ConocoPhillips has undertaken a new joint venture that does materially alter the company’s asset base and future sources of output and earnings.

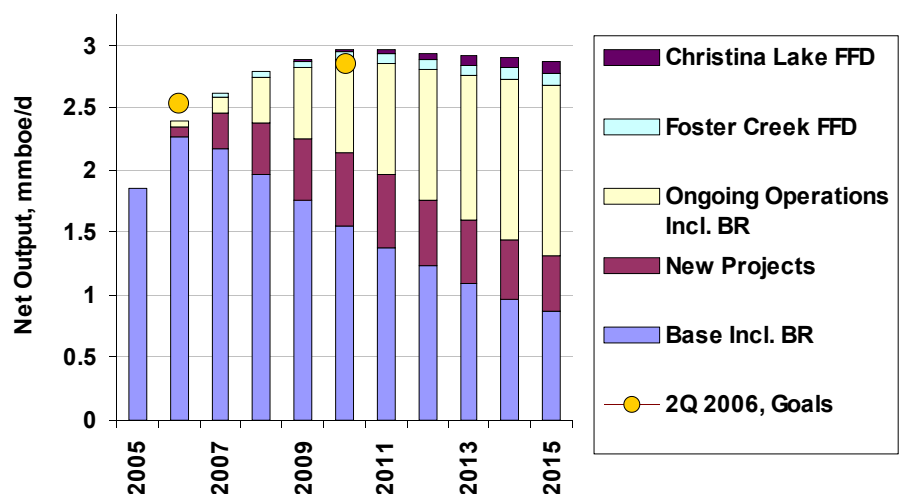
#### ConocoPhillips/EnCana Form Integrated Oil Sands Alliance

The alliance is notable for its size, the fact that it is integrated and that it is transnational in scope. EnCana contributed its interests in the Foster Creek and Christina Lake oil sands projects. ConocoPhillips contributed its interest in the Wood River and Borger refineries. A joint US \$15 billion capital spending program will be undertaken to expand both bitumen output and heavy oil refining capacity.

The impact of this alliance on ConocoPhillips’ production outlook is shown in Figure 1. While volumes are relatively small initially, by late in the forecast period the upstream assets contributed by this alliance account for more than 5% of the company’s worldwide output.

Continued on p. 3

Figure 1: ConocoPhillips’ Worldwide BOE Output



Source: GES Corporate Models, the Growth & Performance Prospects Client Study and the ConocoPhillips Scouting Report

**This Month:** Two new client studies are now available. Together, these two studies provide a comprehensive, comparative look at the Global peer group of companies. This group of companies includes BP, Chevron, ConocoPhillips, ENI, ExxonMobil, Shell and Total.

The first study is Growth and Performance Prospects of the Global Oil and Gas Companies. This study provides extensive forecasts of production, earnings, cash flow, profitability and share valuation estimates.

Project Economics of the Global Competitors is our second client study for October. This is a companion to Growth and Performance and provides extensive detail on the key oil and gas development projects of these companies.

For more information on how to purchase a client study or become a GES client, please contact us using the information provided below.

**3rd Quarter Updates:** You will notice that company operating cost data are not included in this issue. Results for the third quarter are only beginning to become available. This element of our coverage of costs will return next month as the data become available.

**Scouting Reports:** The concluding section of this issue describes our Scouting Report service. This competitor analysis, valuation and forecasting service combines a top-down corporate perspective with a bottom-up asset evaluation.

## CONTACTS

Gordon Energy Solutions is an energy consulting firm specializing in competitor analysis, strategic decisions, political risk analysis, and global issues concerning the international, integrated oil & gas industry. We anticipate future opportunities and challenges confronting our clients and assist in exploiting those opportunities.

By integrating the corporate and financial dimensions of strategy and performance with detailed project level analytics, we maintain a unique approach to your business. GES provides value to our clients through our forward-looking, critical analysis and unique perspective.

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For additional information concerning our most recent work or to find out more about our company, please visit <http://www.gordonenergysolutions.com>.

The significance of the ConocoPhillips and EnCana alliance goes well beyond the deal itself.

As noted in prior issues, access to business development opportunities, the cost of that access and commercial security are central issues in today's environment.

Recent high prices have caused compensating changes in government policies. Venezuela is a clear example along with Russia, Bolivia and, as noted already in this issue, now Algeria.

If rising prices lead to compensating changes in government take and restrictions on access to future resource opportunities, then these policy changes will trigger further market adjustments. Specifically, isn't it likely that these policy changes will cause companies to seek out alternative investments?

Venezuela plays a major role in ConocoPhillips' production base. It is a leading player in the Orinoco projects. As shown in Figure 2, Venezuela promised to play an even larger role in the future in the form of an expanded Hamaca project and the Corocoro development.

The logic of this alliance from ConocoPhillips' perspective is much more clear from the perspective provided by Figure 3, which compares the Hamaca expansion project to the Foster Creek and Christina Lake projects. The graphic shows our estimates of capital spending and contribution to net reserves on the horizontal and vertical axes, respectively. The bubble size reflects the estimated contribution of each project to Asset Economic Value, i.e., to discounted cash flow, on a per boe basis.

To summarize, Venezuelan changes have included

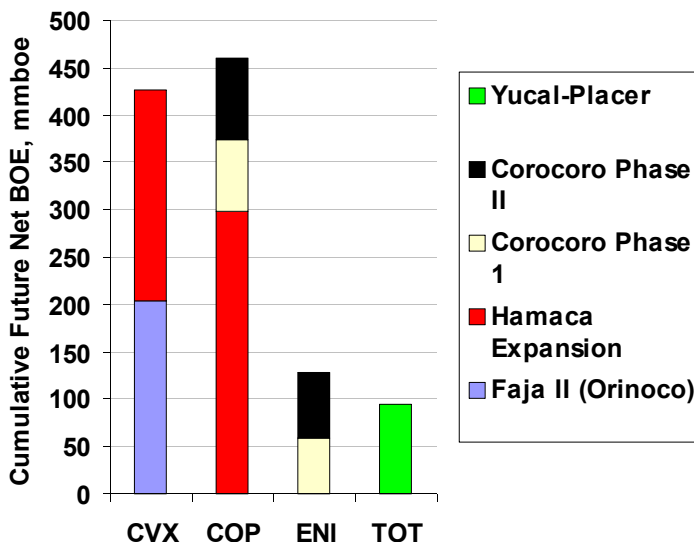
- increasing the royalty rate from 16.67% to 33.33%,
- increasing the income tax rate from 34% to 50% and
- requiring a majority interest for Pdvsa in E&P projects.

Do the changes reduce the economic value of new Orinoco projects? As shown in Figure 3, the revised Venezuelan terms result in more than a 50% reduction in the per barrel value of the Hamaca expansion project (reflected in the bubble size). However, the resulting value of a Hamaca barrel is still roughly comparable to the two Canadian alternatives.

There are three other, potentially more important effects to consider.

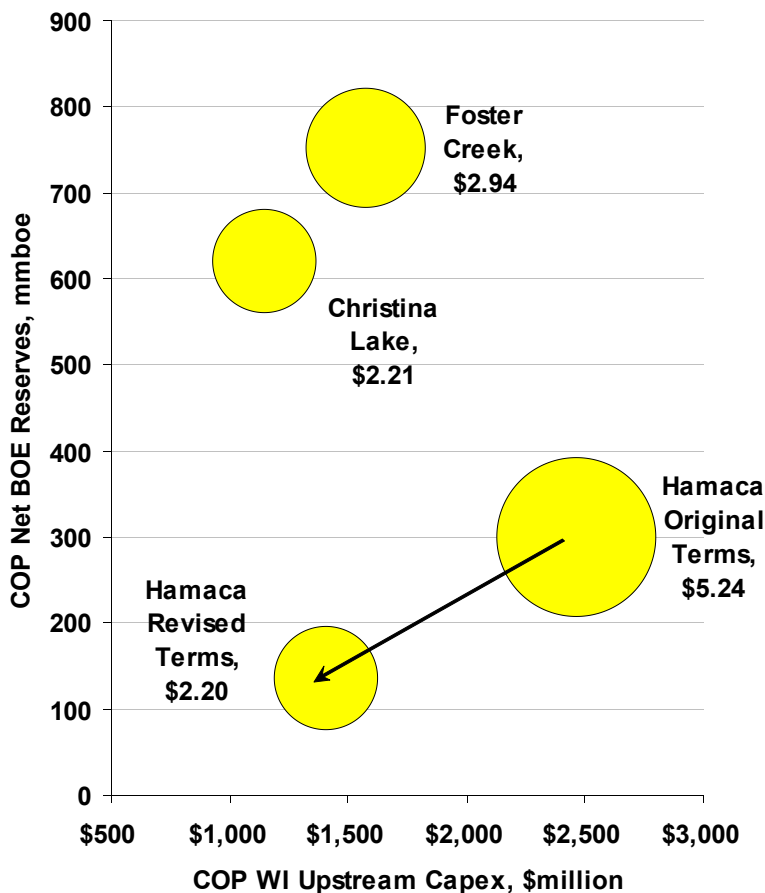
First, as shown in Figure 3, Venezuelan policy changes have dramatically reduced the potential volumetric contribution of these projects to future output. As a result, the Venezuelan projects are much less material than they were and, more importantly, are much less material than the net production contributions to be expected from the Canadian alternatives.

**Figure 2: The Role of Future Venezuelan Projects**



Note: The net reserve estimates are based on the respective companies' current working interests, not the interests likely to result after Pdvsa's share is increased.

**Figure 3: Materiality and Value**



A second factor cannot be shown in the graphics but is, nevertheless, real and important. The volatility of Venezuelan policy may contribute to an estimation of greater risk of additional, adverse changes in the future. The effect is that the risk adjusted contribution of one more Venezuelan project to future value and volume will be more seriously impacted than the data can show. Moreover, this risk issue argues for reducing dependency on Venezuela or other risk prone countries -- a result that flows directly from the alliance.

Finally, as oil prices have fallen from recent highs it seems likely that downside price risk can become a potentially important factor in investment evaluations. Venezuela's fiscal terms do not compare well in a lower or falling price scenario. The system has no built in flexibility and frankly there is little in recent policy to suggest that these tax rates will be reduced in the face of lower prices with anything like the same speed or aggressiveness with which they were increased.

The alliance with EnCana is probably the first of several potentially important industry reactions that Venezuela and other governments will be wise to watch with care.

The fact that this alliance, or one substantially similar to it, could just as easily have been made between ConocoPhillips and Pdvsa is an important fact not only for governments but for other companies competing with ConocoPhillips.

One can only speculate whether a similar move may be forthcoming by BP in the face of Russian policy changes.

## Maersk Farm-In to Hess Deepwater Gulf of Mexico Acreage

In late September Maersk and Hess announced a joint venture agreement in the deepwater Gulf of Mexico. The size of the deal is significant, representing roughly 27% of Hess blocks.

The blocks included in the agreement are all located in the western Gulf and are all held 100% by Hess. As shown in Figure 5, the inventory of blocks in the agreement is dominated by East Breaks with Alaminos Canyon and Port Isabel roughly equal followed by the shallow water South Padre Island blocks at a modest 3% of the total.

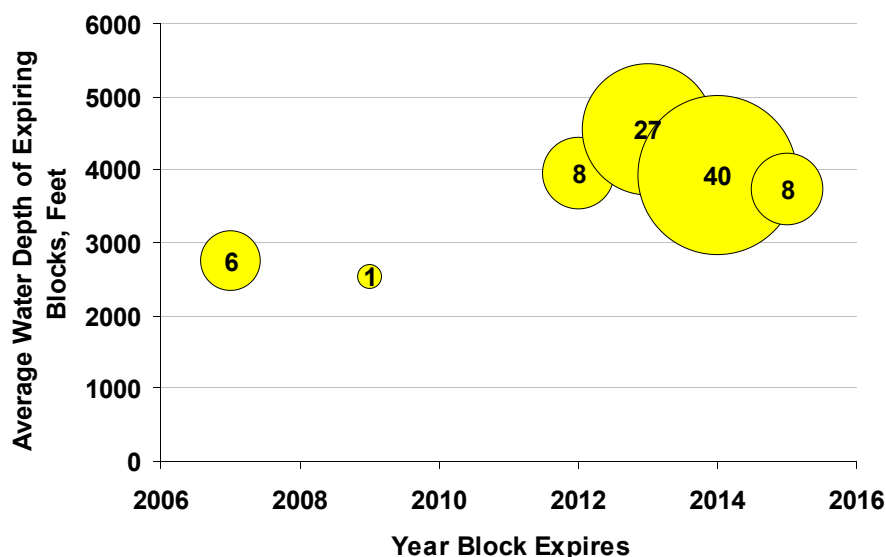
Maersk's entry into the deepwater Gulf is part of a continuing trend among significant non-US-based companies. We have commented on this trend in prior issues.

Throughout the Gulf, a large number of deepwater blocks are approaching their termination dates. It is widely believed that a significant portion of farm-out activity by leaseholders is undertaken in order to drill-up blocks approaching expiration. This is no doubt true.

However, a noteworthy feature of the blocks in the Maersk deal is that they are generally not short-fuse opportunities. That is, 83 of 90 deepwater blocks included in the agreement do not expire before 2012. Maersk has time to drill this acreage. This suggests that Maersk is taking a long view of the Gulf. It remains to be seen if Maersk will follow this deal up with significant bidding in coming lease sales.

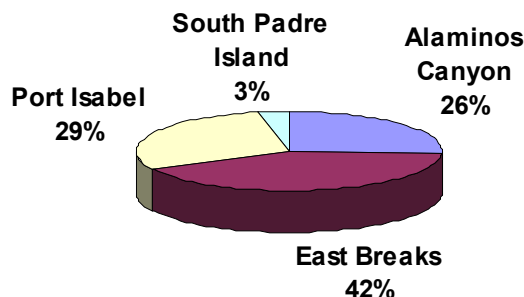
The blocks included in the deal are generally blocks that Hess won on relatively low value bids. This is due at least in part to the fact that the blocks are in the western Gulf.

**Figure 4: Pending Lease Assignments under the Maersk/Hess Agreement**



**Note:** These are blocks for which an assignment was submitted in recent weeks and do not necessarily include all of the blocks in the deal. Bubble size reflects the number of blocks in each year of expiration. Three South Padre Island blocks in water depths less than 300 feet are not included in the chart above.

**Figure 5: Distribution of Blocks by Area**



## Other Items of Interest

**Algeria:** As already mentioned, Algeria has implemented significant changes including mandating a minimum 51% share for Sonatrach in E&P ventures and a “windfall” tax.

**Bolivia:** Argentina and Bolivia reached agreement on gas export terms. The price of Bolivian gas will be increased to a base rate of \$5/mmbtu beginning January 1, 2007.

The credibility of the agreement is undermined by the additional condition that \$1 billion will be spent to ensure that supply will be increased to almost 1 bcf/d by 2010 from less than 300 mmcf/d today.

**Argentina:** The perils of price controls. Neuquen governor calls for royalties based on international oil prices despite the federal level export tax-induced subsidized domestic prices.

**Russia:** After an extended series of teasers about the Shtokman gas field, Gazprom announced that (1) it will not include international oil companies as partners and (2) the gas will be piped to Europe using the North European Gas Pipeline (now the Nord Stream pipeline) rather than North America via LNG. The capacity of Gazprom to pull

this off in view of its other domestic challenges is debatable.

On a different front, Gazprom negotiated a 36% increase in the delivered price of gas to the Ukraine. The agreement calls for a price of \$3.82/mcf (\$135 per mcm).

## Lukoil Growth Aspirations

Lukoil recently announced that Gazprom will increase the price it pays for natural gas to \$40 per mcm (\$1.13/mcf) -- a doubling over current prices.

The news is especially significant in that (1) the company has announced its plan to achieve worldwide boe output growth rates of nearly 7% on an average annual basis and (2) rising gas production in Russia and the Caspian area will be a key source of this growth.

The combined prospect that (1) a company might achieve 7% volumetric growth rates but that (2) the additional volumes are priced at the btu equivalent of \$6.78/boe highlights the point we make below in Looking Forward.

It seems likely that the dynamic between Lukoil and Gazprom will be interesting in the coming months and years.

## Gas Shut-Ins

Chesapeake Energy announced in late September that it will temporarily shut-in 125 to 150 mmcf/d of gross gas production due to low US natural gas prices. This decision is highly consistent with the results of our Natural Gas client study.

This comes at the same time that Newfield announces plans to increase Woodford Shale gas output by nearly 300 mmcf/d by 2009.

## Pending Licensing Rounds

Brazil is offering 284 blocks in its Round 8 to be held this November.

Mexico's Burgos Basin round involves additional gas assets to be developed and produced under Mexico's Multiple Services Contract (MSC) rules. While 14 companies have apparently shown an interest, only a few international oil companies are included such as Repsol and Tecpetrol. However, there is one other very interesting company that purchased the bidding rules for the Euro block -- EnCana.

# LOOKING FORWARD

We believe that a central conclusion of the client studies completed this month merits explicit attention here.

Fundamental changes have been underway and are now well advanced that will affect the character of the industry and the assets that drive production and earnings.

As a result of these changes, widely-used, conventional measures of oil and gas company performance (both absolute and relative to peers) are misleading at best and can, in fact, lead to wrong conclusions.

Three unambiguous examples of failing measures are boe production growth rates, production replacement rates and finding and development cost per boe added.

The essence of the problem is not entirely new. Clients should remember, for example, the period when Canadian gas was bottled up in Alberta and the resulting depressed prices. A somewhat similar process is at work now and has the effect of

making btu equivalency measures of performance over time, across countries, or by types of assets misleading at best.

The second essential root of the problem is that the distinction between upstream and integrated assets is being challenged by the realities of doing business in the modern energy industry. Significant differences exist in the degree to which various companies are affected.

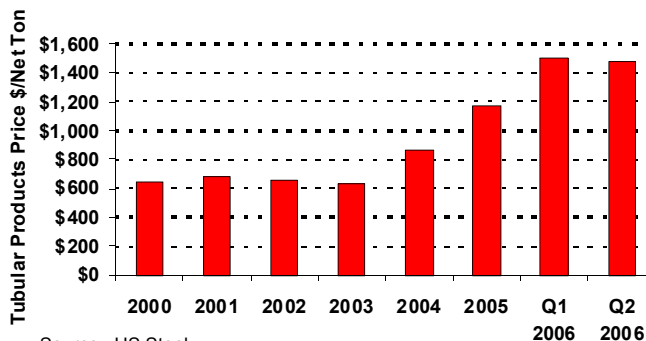
While the basic nature of the problem is not new, the degree to which it distorts performance measures is new. Also, the complexity of sorting out the false signals and noise is much greater than before.

# COST WATCH



## Tubular Steel Products Price

In a presentation of 3rd quarter results, ConocoPhillips indicated that some projects may be delayed due to cost inflation.



Source: US Steel

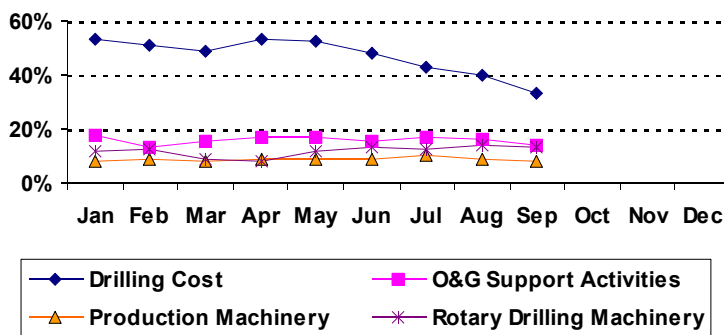
## September Producer Price Indices

Initial estimates are that September drilling costs are down by 5% relative to the prior month, suggesting that cost inflation pressures may be easing at least temporarily. Another indicator that this may be the case is the gradual downward trend in cost inflation rates in each month compared to the same month last year. The expectation that inflation in day rates may be largely over was mentioned by the CEO of Nabors Industries in his 3rd quarter discussion of results.

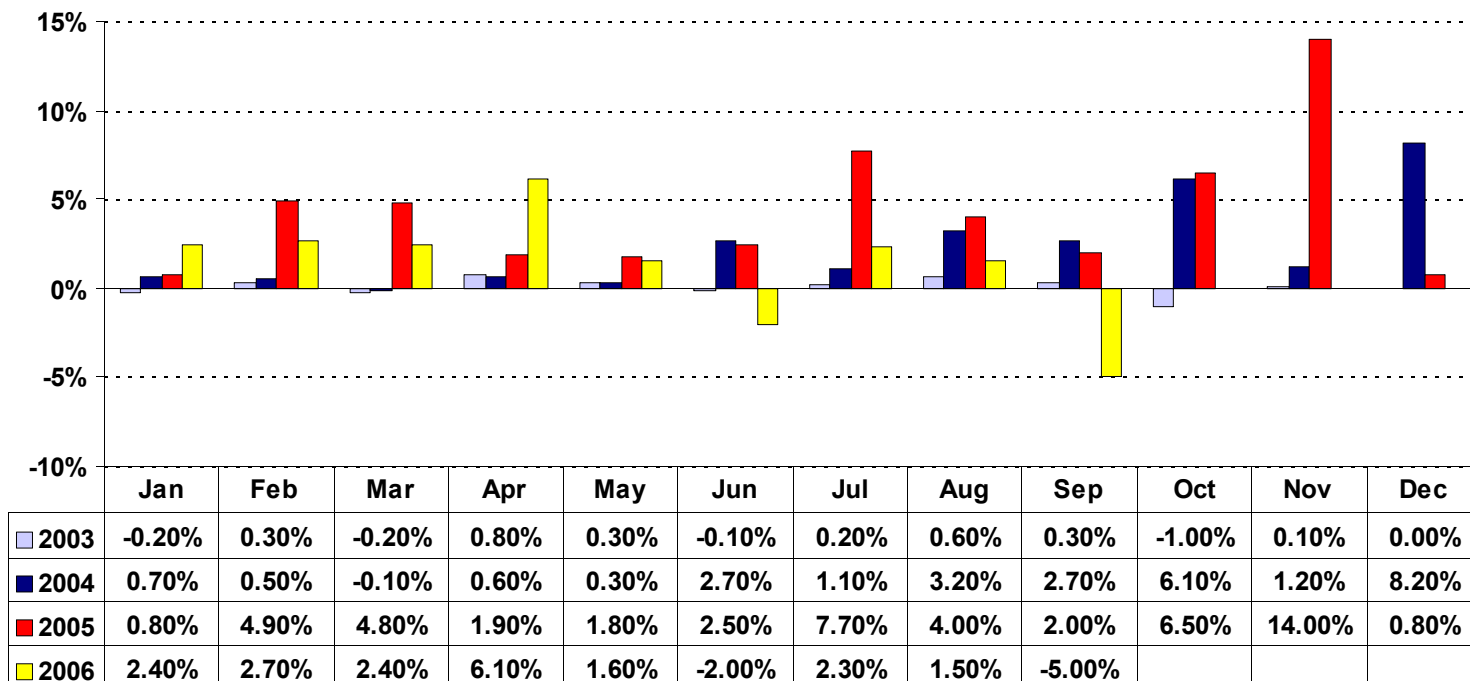
Nevertheless, the September drilling cost index is still up by 33% compared to September of last year and, on a year to date basis, the estimated increase in 2006 costs relative to 2005 is 38%.

Other costs including support activities and selected machinery and equipment continue to be up by 10 to 20%. It is worth noting that the rate of inflation of drilling costs is much higher than the rate of inflation of rotary drilling machinery.

## Annual Inflation of Selected Industry Costs



## US Producer Price Index: Monthly Percentage Change in the Cost of Drilling Oil & Gas Wells



## Year over Year Percentage Change

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2005	27.2%	31.7%	36.5%	37.8%	39.4%	39.2%	45.8%	46.6%	45.9%	46.3%	59.1%	51.7%	43.2%
2006	53.3%	51.1%	48.7%	53.0%	52.7%	48.3%	42.8%	40.3%	33.3%				38.2%

A Scouting Report is a focused, forward-looking analysis of a competitor, a prospective partner or an acquisition target. The client specifies the company, the purpose of the report and even the key premises to be used in preparing the report.

This service combines corporate and asset valuation, competitor analysis and strategy in a single report. Every Scouting Report is issued using the most recent information available at the time the request is received. These are not canned reports that may be using out of date information.

Our Scouting Reports draw from the full spectrum of GES assets and capabilities. The result is a unique combination of top-down and bottom-up analysis to generate a three dimensional view of the company and its future.

Regardless of the specific reports a client chooses or the purpose to which they are applied, Scouting Reports add value by multiplying the resources available to our clients.

The key sections of a Scouting Report are:

- 1 Strategic Goals and Means to these Goals
- 2 Corporate Valuation and Share Price Performance
- 3 Value Drivers and their Impact on Valuation and Performance
- 4 Capital Spending Forecasts
- 5 Corporate Capital Structure and Performance
- 6 Capital Strategy Options and their Impact
- 7 Risk Factor and Marginal Asset Analysis

The data that GES collects as input to our research and the modeling steps taken to generate a Scouting Report are outlined in the process flow diagram on the next page.

Our current inventory of corporate models is extensive in both the number of companies modeled and the range of company types. Models are currently in place for nearly 40 companies. This pool of models covers companies ranging in size from Quicksilver to ExxonMobil.

However, the service offered under Scouting Reports is not limited to any arbitrary group of companies. A

### Current Geographic Coverage of GES Project Economic Models



Note: This is current as of end of 3rd quarter 2006. Additional models continue to be generated. Coverage in some areas includes multiple jurisdictions and tax systems. For example, US onshore models include the Barnett, Woodford and Fayetteville shale plays plus E. Texas, the Piceance Basin, and the Codell/Niobrara.

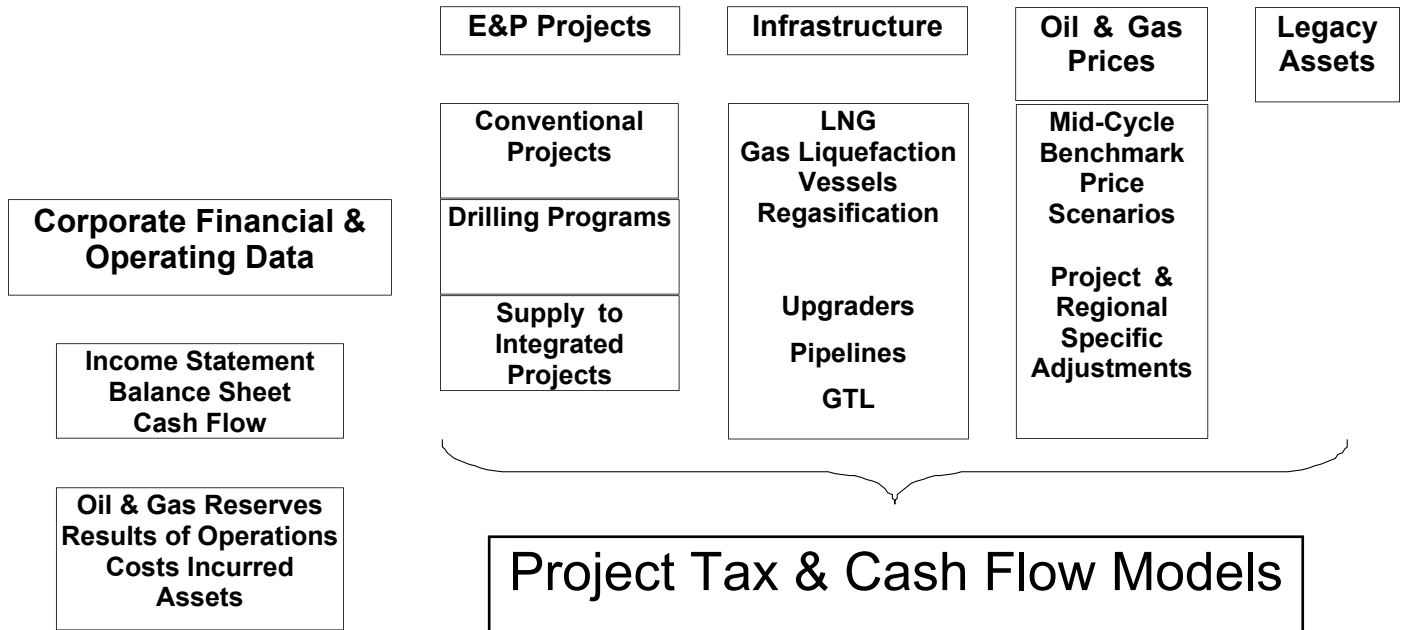
significant component of the Scouting Report service is on-demand or custom modeling of companies that are of specific interest to a client.

For more information concerning Scouting Reports, including pricing and terms call or email us. Also, a detailed sample report will be provided on request.

# SCOUTING REPORT PROCESS FLOW



## Operational & Asset Specific Data and Analysis



## Corporate Forecast Models

## Key Operational, Financial & Performance Forecasts

<b>Production</b>	<b>Capital Spending</b>	<b>Earnings</b>	<b>Capital Structure &amp; Strategy</b>	<b>Proprietary Metrics</b>	<b>Acquisition Analysis</b>
By Asset Class By Regions	After-tax Cash Flows  Project Returns	Per boe By region & class Per Share	ROCE Leverage Ratios Dividends	Asset Depth Risk Exposure Marginal Asset Analysis	Evaluation of Fit

## Corporate & Asset Valuation