

MUSINGS FROM THE OIL PATCH

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Note: *Musings from the Oil Patch* reflects an eclectic collection of stories and analyses dealing with issues and developments within the energy industry that I feel have potentially significant implications for executives operating oilfield service companies. The newsletter currently anticipates a semi-monthly publishing schedule, but periodically the event and news flow may dictate a more frequent schedule. As always, I welcome your comments and observations. Allen Brooks

Windfall Profits, Industry Spending and Peak Oil

Altering the tax code to inflate profits to generate additional taxes is essentially a windfall profits tax in disguise

The battle over oil industry windfall profits took another step forward with the inclusion of a provision in the Senate tax bill to require oil companies to determine the value of their inventory in a different manner that would minimize its value and thus inflate profits that would be taxed. The proponents of this tax refuse to call it a windfall profits tax. Technically it may not resemble what most of us consider a windfall profits tax since it is not directly related to a past (lower) oil price or some arbitrarily determined profit level. However, altering the tax code to inflate profits to generate additional taxes is essentially a windfall profits tax in disguise.

The battle underway over oil industry profits reflects a mix of issues and motives

The battle underway over oil industry profits reflects a mix of issues and motives that really will do little to solve the issue of current high gasoline pump prices and sky high home heating bills this winter. Let's see if we can separate out some of the claims and threats to better understand the broader issues. The issues are: Why do petroleum prices jump around so much? Why aren't oil companies reinvesting in new refineries with their huge profits? What are oil companies doing with their large profits? Why shouldn't oil profits be subject to higher taxes since petroleum is a critical necessity of life? Why shouldn't the oil companies be more concerned about the high utility bills consumers will face this winter?

We will not review some of the issues such as the impact of the loss of crude oil and natural gas supplies, the shutdown of a meaningful portion of the U.S. refining industry and the challenges of meeting regional fuel supply needs. Most observers believe the oil industry preformed well in dealing with these issues. Where they haven't done well is in the public relations arena, but then again this industry has always carried a tainted reputation. That taint came from the actions of some of the early participants in the industry – the

The major problem is a lack of refining capacity and there is nothing that can be done to alter this shortage in the near-term

wildcatters, the monopolists and the renegades. The image was popularized, and reinforced, by the actions of the characters on the 1970s TV show, Dallas.

While oil company executives appear to be unmoved by the economic pain that high petroleum product prices are inflicting on consumers, the reality is that there is little they can do to change things. Because the major problem is a lack of refining capacity, there is nothing that can be done to alter this shortage in the near-term, except what has been done by the Bush Administration in relaxing emission and Jones Act rules to increase the industry's flexibility in delivering more fuel from alternative supply sources. Trying to explain these industry subtleties to the public is impossible.

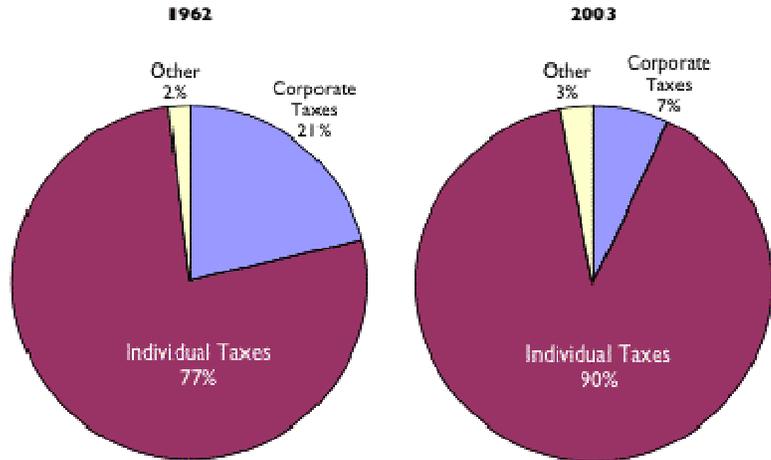
The oil industry has struggled with its PR image, largely due to the varied types of players who make up this industry and their different needs and issues. Independent oilmen have quite different concerns from those of the major integrated companies. Public company managements must consider a wider range of issues than do those of the privately-owned companies. Factor in the challenges of the refiners and fuel oil distributors and the range of PR issues facing the petroleum industry is extremely wide. Often the responses to issues put various segments of this industry at odds. Thus it is not surprising that the petroleum industry has difficulty producing a unified message on the issues it confronts.

By acting like a good corporate citizen, Mulva short-changed his shareholders and sent incorrect signals to the marketplace

An interesting example of this problem emerged from the testimony of James Mulva, the head of ConocoPhillips (COP-NYSE), before Congress. He said, in response to a question about gas prices, "Immediately after Katrina's and Rita's arrivals, our company froze gasoline prices in the impacted states at all of our company-owned stations and convenience stores for several days and then lagged price increases in the spot market by nearly 50%." By acting like a good corporate citizen, Mulva short-changed his shareholders and sent incorrect signals to the marketplace that may have caused competitors to act differently – possibly to the detriment of consumers. The impact of wrong market signals was highlighted by the CEOs of competitors to WorldCom, the telecommunications company, whose fraudulent financial figures caused them to make investments and lay off workers in strategic responses that they would not have done had WorldCom's lack of profitability been evident.

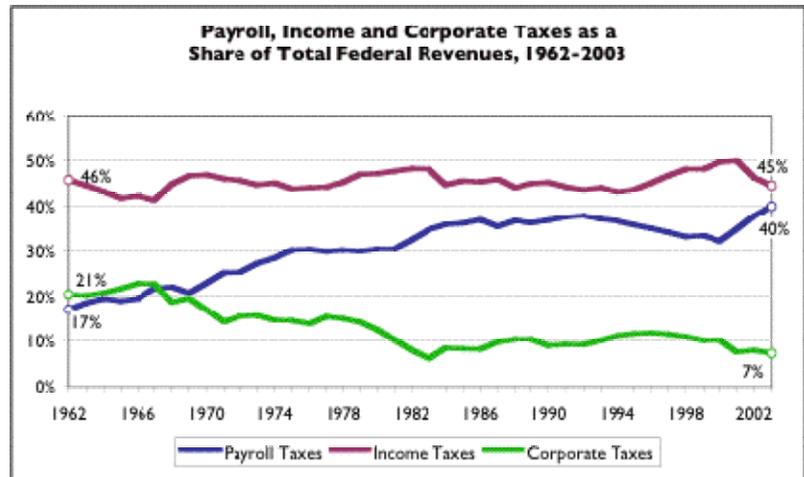
The issue of windfall profits, while it may be political theater for angry constituents, actually reflects a bigger issue – where to get tax revenues to fund the growing government spending? Over the past forty years, the percentage of tax revenues generated from corporations has declined significantly. There is an economic argument that corporate taxes are merely passed on to consumers in the form of higher product prices. If so, then eliminating corporate taxes would reduce product prices, easing consumer budgets. It doesn't appear that this issue has been addressed by the blue-ribbon tax reform commission's proposal to overhaul our tax system.

Exhibit 1. Corporate Taxes Have Shrunk in Importance



Source: The Rude Awakening

Exhibit 2. Payroll Taxes Have Become a Burden



Source: The Rude Awakening

One tax issue that has recently been raised has to do with how much of the price of a gallon of gasoline flows to the federal government. Because the gasoline tax is a use tax, the money is dedicated to the highway trust fund. We doubt there will be any serious effort to modify this tax. What may draw increased public scrutiny are future highway spending bills, especially after the bill produced by Congress this summer. We noted at that time that the senior senator from Rhode Island highlighted the \$2 million he secured for re-timing the traffic lights in downtown Providence. Our attention was drawn to this money since the City of Houston is in the midst of a two-year program to do the same thing, but without the benefit of federal money.

Saudi Arabia's King Abdullah urged oil-consuming countries to cut their taxes on petroleum products when prices rise

Petroleum taxes consistently draw attention whenever crude oil prices climb. As western politicians warn, or berate, the leaders of Middle Eastern oil producers to step up their production to lower prices, the typical response from those leaders is to suggest reducing western government tax takes. This pattern was repeated as recently when Saudi Arabia's King Abdullah urged oil-consuming countries to cut their taxes on petroleum products when prices rise. He was speaking at a meeting of oil ministers, government energy officials and officials from the world's largest oil companies and energy organizations in connection with the opening of the permanent headquarters for the International Energy Forum, an organization aimed at promoting dialogue between oil producers and oil importers.

The biggest question mark is why the oil industry hasn't been more aggressive over the past couple of years in boosting its E&P spending

The King also admonished oil consumers that they should cease the speculation in petroleum markets that help inflate prices. We assume he was taking the lead from ExxonMobil (XOM-NYSE) CEO Lee Raymond who told CNBC talking-heads that there was likely \$20 of speculation in the then \$60 per barrel oil price.

To us, the biggest question mark is why the oil industry hasn't been more aggressive over the past couple of years in boosting its E&P spending. While pondering an answer to this question, we read an opinion piece on the oil industry's attitude toward the peak oil debate, which may help explain events. The author, Justice Little of *The Rude Awakening*, suggested that the oil industry was merely following decision analysis theory that was first advanced by the philosopher Blaise Pascal. He said, "God is, or he is not. Which way should we incline? Reason cannot answer." Pascal's argument was that the reward-to-risk of not believing in God's existence favored believing. If you believe in God you either go to heaven or find yourself none the worse for wear if he doesn't exist. If you don't believe and he does exist, you run the risk of going to hell.

What do Pascal and God have to do with oil industry spending?

What do Pascal and God have to do with oil industry spending? When you engage in long-range forecasting and are choosing between alternatives, one needs to weigh consequences as well as probabilities. As it relates to peak oil, it has become very much like the issue of God's existence. To some, peak oil is truth. To others it is a myth. The problem is: By the time a resolution emerges, it is too late to change direction.

The reward-to-risk profile for ExxonMobil, like that for the other major oil companies, may not be what many of us assume

For someone like Lee Raymond, the reward-to-risk profile for ExxonMobil, like that for the other major oil companies, may not be what many of us assume. If the peak oil scenario proves false, having stayed with the industry's, and ExxonMobil's, long-term forecast of oil prices in the \$20-\$35 per barrel range will have prevented some expensive mistakes. On the other hand, if peak oil proves true, high prices will continue to generate high profits and the company's growth can be financed by either wise E&P moves or buying up independent producers with reserves. Therefore, ramping up investment spending carries greater downside risk than sitting tight. The problem with this analysis is that it can't be shared with

We will solve our energy challenges by the seat of our pants, and barely in time

the public. Therefore, the strategy for executives such as Lee Raymond is to debunk the peak oil debate. By doing so, he is serving the best interests of his shareholders, but not necessarily because he truly believes he has the facts on his side.

The conclusion that comes from this analysis is not encouraging. First, we cannot count on the oil industry to fully address our future energy risks because it may not be in their best interest. Likewise, we cannot count on government to produce a workable solution because they serve different masters. The only thing we can count on is continued volatility. We will solve our energy challenges by the seat of our pants, and barely in time.

A Bear on Oil Speaks Out

OPEC must consider cutting production next year to support oil prices

The Centre for Global Energy Studies (CGES), a London-based think tank founded in 1990 by Sheikh Ahmed Zaki Yamani, the former Minister for Petroleum and Mineral Resources for Saudi Arabia in 1962-1986, has warned that OPEC must consider cutting production next year to support oil prices. Due to the impact of high oil prices on global oil demand and a sharply lower demand growth rate in China, CGES sees only a 1.3% oil demand growth in 2006, or an increase of 1.1 million barrels per day (b/d). This forecast is well below the forecasts recently released by the International Energy Agency (IEA), the Energy Information Administration (EIA) and OPEC. These three bodies see 2006 global energy demand growth ranging between 1.8% and 2.2%, or physical increases of between 1.5 million b/d and 1.8 million b/d.

CGES projects that non-OPEC production in 2006 will grow by 850,000 b/d, leaving only 250,000 b/d of global demand growth to be satisfied by OPEC. That will certainly put pressure on OPEC members to cut their current production since several members are planning to boost their production next year. The prospect of weaker demand growth due to unseasonably warm early winter weather both in the U.S. and Europe has put pressure on oil prices. Recently, the OPEC crude oil basket traded below \$50 for the first time in several years. CGES says that Saudi Arabia would need an OPEC basket price of at least \$47 at 9 million b/d of production to be able to pay its debt and meet its country's budget. If the Kingdom cut production to 8 million b/d it would need a \$56 OPEC price.

The key in all these forecasts is the assumption about the decline rate of existing producing fields – a noticeably difficult figure to guess accurately

The range of non-OPEC production growth estimates for the three forecasting agencies call for somewhere between 700,000 b/d (EIA) to 1.4 million b/d (OPEC). With estimates of increases of between 200,000 b/d to 400,000 b/d of NGLs from OPEC, oil production from OPEC is projected to remain flat to up slightly. The key in all these forecasts is the assumption about the decline rate of existing producing fields – a noticeably difficult figure to guess accurately.

Let's see, if we remember right, it was only months ago that we worried about the ability of OPEC, and Saudi Arabia in particular, to

meet the rapidly growing global energy demand outlook being projected. But that was before \$60-\$70 per barrel oil prices. Clearly, oil prices at this level have begun to take a toll on demand growth. At the same time, we wonder whether there has been a positive supply response to the higher oil price. We may also see a slowing in the decline depletion rate due to oil companies spending more money to sustain existing oil fields. Glut anyone?

Oil Pirating A Re-emerging Issue

So far in 2005, there have been 205 pirate attacks against ships

So far in 2005, there have been 205 pirate attacks against ships, down from 251 attacks in the first nine months of 2004, as reported to the International Maritime Bureau (IMB). There have been 25 attacks by heavily armed pirates in the past six months, a trend that appears to be accelerating. One recent attack came after pirates lured a ship by firing distress flares.

A major focus of pirate activity has been off the coast of Somalia on the Horn of Africa. Somalia is located south of the major shipping route between Europe and Asia that traverses the Suez Canal and the Red Sea. This former Italian colony has operated for the past 14 years without a functioning national government and is close to anarchy. The increased pirate activity was highlighted by attacks against an oil tanker and a cruise ship. The oil tanker was captured and only recently released after being held for over a month. The cruise ship escaped the attack by accelerating and taking evasive actions in order to outrun and outmaneuver the pirate speed boats. As a result of this increased pirate activity, ships are now advised to stay at least 200 nautical miles off the coast.

Exhibit 3. The Horn's Location Encourages Pirating



Source: Wikipedia

The Malacca Straits is the busiest shipping lane in the world with 50,000 ships traversing it annually

According to the IMB, some 259 crew members have been taken hostage in 2005 with 10 kidnapped and 12 missing. There were no reports of crew killed, although in 2004 there were 30 killed and 21 in 2003. The number of attacks, while lower than last year, reflects a second year of stepped up pirate activity. There have been 61 incidents in Indonesian waters. Since February there have been 10 pirate attacks in the Malacca Straits, the 550-mile long path between Indonesia and Singapore and Malaysia. At its narrowest, the strait is only 1 ½ miles wide providing little maneuvering room for large ships and tankers. The Malacca Straits is the busiest shipping lane in the world with 50,000 ships traversing it annually. These ships account for about half of all the oil shipped in the world and 25% of all the maritime trade.

Exhibit 4. Malacca Straits Critical for Asian Shipping



Source: Wikipedia

Kidnapping has made Shell, and other western oil companies, more leery of increased investment in Nigeria

Other troubling areas of increasing pirate activity include off the Basra oil terminal in Iraq where there have been six attacks so far this year despite the stationing of one U.S. aircraft carrier group and three expeditionary strike groups to support the Iraqi navy. There has also been a pickup in pirate activity off the mouth of the Bonny River in Nigeria. According to Royal Dutch Shell (RDSA-NYSE), it had 70 employees kidnapped in 2004 and paid nearly \$1 billion in ransom for their release. This cost has made Shell, and other western oil companies, more leery of increased investment in Nigeria.

An attack on tankers in the Malacca Straits could force ships to take alternate, and hundreds of miles longer, routes adding additional time and cost to the shipment of oil to Asia

For the maritime industry, this increased pirate activity is of growing concern. Today, about two-thirds of all the oil moved in the world goes aboard tankers. Projected oil demand and supply trends suggest that this percentage may increase in future years. While tankers have not been targeted for terrorism, except for the French tanker, *Limburg*, which was attacked by al Qaeda operatives in 2002, this potential cannot be underestimated. For example, an attack on tankers in the Malacca Straits could force ships to take alternate, and hundreds of miles longer, routes adding additional time and cost to the shipment of oil to Asia. Likewise, the sinking of one or two tankers in the Straits of Hormuz in the Arabian Gulf could shut down tanker exports for upwards of 60% of the world's oil for some time with catastrophic economic results. The fact that such an

Supposedly the Indian terrorist group, Tami Tigers, and al Qaeda own or control 15-23 sea-going ships that enable them to seize cargo and later sell it for their own accounts

attack has not occurred suggests either the great job the respective navies are doing in guarding these waters, or the realization by the terrorists of the economic damage (and to their funding sources) such a catastrophe would cause.

We doubt this increase in pirate activity will diminish significantly in future years. The increased violence and sophistication of recent attacks indicates that pirate activity is more lucrative than the risk of getting caught. Supposedly the Indian terrorist group, Tami Tigers, and al Qaeda own or control 15-23 sea-going ships that enable them to seize cargo and later sell it for their own accounts. The relative ease with which pirates are obtaining more powerful and sophisticated portable weapons and their ability to repaint and re-flag ships and alter cargo manifests makes it likely that this activity will remain an attractive way of securing money. The increased cost to the maritime industry for protection of its ships and cargoes will merely be passed on to customers.

The greatest economic risk is that terrorists seize upon this vulnerability of the shipping industry and force major changes in operations, adding meaningful costs and time delays to a tightly balanced, just-in-time global inventory system for oil and other critical materials. For many people, their vision of pirates is the recent Disney (DIS-NYSE) movie, *Pirates of the Caribbean*, or tales from the 17th and 18th centuries, not the heavily armed, sophisticated pirates of today.

Mackenzie Valley Pipeline Moves Forward

The Mackenzie Valley Pipeline Group said it had made enough progress on financial and access issues to justify moving the C\$7 billion project forward to public hearings

In a letter dated November 23 to the National Energy Board (NEB), Imperial Oil Company (IMO-TO), the leader of the Mackenzie Valley Pipeline Group, said it had made enough progress on financial and access issues to justify moving the C\$7 billion project forward to public hearings. According to Imperial Oil Senior Vice President Randy Broiles, "Sufficient progress has been made in all key areas - namely clarity of the regulatory process, the negotiation of benefits and access agreements with northern aboriginal groups, and fiscal framework discussions with governments - for us to proceed to public hearings."

Imperial noted that a November 18 letter from Deputy Prime Minister Anne McLellan spelling out various options to improve the economics of the pipeline project including even participation by the federal government to insure that the project moved forward also contributed to the Group's decision. The government is not interested in partnering, but will work to see that downside risk to the project is minimized, as long as some upside reward can be assured. The pipeline group is still negotiating terms of various agreements key to the project, including an access agreement with the Deh Cho people, one of the aboriginal groups whose land the pipeline would cross. The Deh Cho group emphasizes that it is in very early negotiations and cautions about any near-term deal.

Exhibit 5. Mackenzie Valley Pipeline Route

Source: CIA

Imperial Oil pointed out that this decision did not insure that the pipeline would be built

The next step is a review of the application by the NEB and the Joint Review Panel. Imperial Oil pointed out that this decision did not insure that the pipeline would be built, but it certainly improved the odds. This natural gas will be needed for the successful development of the oil sands projects and to boost gas export volumes to the U.S. market. These are goals of the Canadian government and why it is actively working to make the line happen.

A Burr Under Bush's Saddle

CITGO has agreed to provide more than 12 million gallons of discounted heating oil over the next four months to Massachusetts citizens

Immediately prior to the Thanksgiving holiday, Venezuela's President Hugo Chavez announced an agreement for a subsidiary of the state-owned oil company to supply heating oil at 40% below market prices to certain U.S. citizens. The Citgo refining and marketing subsidiary of Petroleos de Venezuela S. A. (PdVSA) has agreed to provide more than 12 million gallons of discounted heating oil over the next four months to two charity organization that will distribute it to Massachusetts citizens. The deal was brokered by Massachusetts Congressman William Delahunt who had met with Chavez in August.

So now, the man who has made challenging U.S. foreign policy in Latin America a high priority, and who has specifically attacked the U.S. and George Bush, who he claims is trying to have him removed from office and even this planet, is now a hero to low-income Massachusetts citizens. Chavez's elevated status comes after the CEOs of five leading U.S. oil companies advocated that government, and not private enterprise, should provide financial assistance to low-income people for their winter heating bills. The Bush Administration has failed so far to secure increased government funding for low-income fuel bill relief, although some of the proposed

windfall profits tax bills do have provisions for using these funds for low-income heating bill aid. Look for the Bush Administration to try to develop a subsidy program to provide more help for the poor, if for no other reason than to blunt the global PR-value currently accruing to Chavez.

Can Rand McNally Help Saudi Arabia?

Naimi isn't looking for a Rand McNally road atlas, but rather a map that would enable Saudi Arabia to determine the amount of investment it needs to make in additional oil production capacity

The IEA says that Saudi Arabia needs to invest \$174 billion between 2004 and 2030 to lift the country's production to a "technically possible" level near 18.2 million b/d in 2030

Dow Jones' *Energy Matters* believes that Saudi Arabia would defend an OPEC oil basket price of \$40 per barrel

At a press conference in conjunction with the International Energy Forum held in Riyadh, Saudi Arabian Oil Minister Ali Naimi called for a "road map" for oil demand growth from consuming countries. Naimi isn't looking for a Rand McNally road atlas, but rather a map that would enable Saudi Arabia to determine the amount of investment it needs to make in additional oil production capacity to satisfy future global demand. This call for a road map is an interesting request as it follows on the recent release of a revised forecast to 2030 for global oil demand and supply by the IEA. The forecast also spelled out the anticipated role that Middle East and North African oil producers, and especially Saudi Arabia, are expected to play in meeting the global demand forecast. What may have been missing from the IEA forecast, and all other long-term forecasts, is a prediction of the future crude oil price that Saudi Arabia believes, or is willing to plan on.

The IEA forecast calls for world oil demand to grow at 1.4% per year. That growth rate would take global demand to 92 million barrels per day (b/d) in 2010 and to 115 million b/d in 2030. The bulk of the supply to meet this demand will have to come from the Middle East as ageing fields in the U.S., the North Sea and Mexico experience production declines. The IEA says that Saudi Arabia needs to invest \$174 billion between 2004 and 2030 to lift the country's production to a "technically possible" level near 18.2 million b/d in 2030. Saudi Arabia is currently producing about 9.55 million b/d, or about 500,000 b/d above its official production quota.

Under this forecast, the IEA crude oil import price, which was \$36.33 in 2004 and reached a peak of \$65 in September 2005, is projected to ease to \$35 in 2010 as more supply and refining capacity comes on stream. The price is projected to increase slightly to \$39 (in 2004 dollars) in 2030. Under the alternative forecast scenario the IEA prepared that assumes a continued lack of adequate investment in new production and refining capacity, the oil price would increase to \$52 (in 2004 dollars) in 2030.

Recently, OPEC Secretary Adnan Shihab-Eldin told Platt's *Petroleum Intelligence Weekly* newsletter that an oil price above \$60 per barrel was hurting the world economy. He said that OPEC would defend prices in the \$40-\$50 per barrel range. Another energy publication, Dow Jones' *Energy Matters* believes that Saudi Arabia would defend an OPEC oil basket price of \$40 per barrel, which would translate into a \$45 price for West Texas Intermediate oil. That price would translate into better than a 20% decline from

Naimi focused on the disastrous 1970s history of Saudi Arabia's investment in expanded oil production capacity

current spot oil prices that have climbed recently in response to the arrival of winter weather in the U.S. Northeast and northern Europe.

During the Naimi press conference, he focused on the disastrous 1970s history of Saudi Arabia's investment in expanded oil production capacity. During that period, in response to the increase in world oil prices, Saudi Arabia expanded its production capacity from 3 million b/d to 10 million b/d only to see weakening demand in the early 1980s. At that point, Saudi Arabia tried to defend the OPEC oil price in the face of weakening demand only to see its market share eroded by other OPEC members who were willing to boost production at lower prices. The 1985 oil price collapse resulted in Saudi Arabia having 7 million b/d of shut-in production capacity. Obviously this experience and the resulting economic pain inflicted on the Kingdom has colored its view about investing to expand its production capacity.

As Naimi put it, "We don't want to build and construct an expansion of production while we don't have enough demand, or know how much demand we will have. The reason we ask for a road map for consumption is to try to avoid a mismatch between what producers do and what consumers do." At the press conference, Naimi emphasized Saudi Arabia's commitment to expanding its production capacity to 12.5 million b/d from its current 11 million b/d by 2009. Meeting that goal may prove challenging since Saudi Arabia appears to be falling behind on its plan to boost drilling activity, despite denying these claims

GTL Vehicle Gets Test Drive

GTL that it can be blended with conventionally refined diesel to reduce the sulfur content of the resulting fuel

Qatar Petroleum and Shell Gas & Power International presented the first automobile equipped to run on Qatar-produced gas-to-liquids (GTL) fuel. The car was an unmodified 4.2 liter Audi A8. It demonstrated GTL as a clean, practical alternative fuel that can be used in conventional diesel engines. We know from our research on GTL that it can be blended with conventionally refined diesel to reduce the sulfur content of the resulting fuel. GTL will be an important source of clean diesel fuel to help the United States and countries in Europe meet tightened emission requirements.

Qatar Shell GTL Ltd. is moving forward with plans for a \$6 billion GTL project to construct two 70,000-b/d trains, with start up in 2009.

If Chocolate Fails the Test, Will Manure?

EPA mandates pollution control devices to eliminate the chocolate smell

The Environmental Protection Agency (EPA) has forced a plant in St. Louis, Missouri that produces chocolate products to install pollution control devices to eliminate the chocolate smell it emits. We thought that was interesting since the action was motivated by a complaint to the EPA. So how will the neighbors in Hereford, Texas take to the announcement of plans to build a 100 million gallon fuel

The plant will convert one billion pounds of cattle manure into a clean burning bio-gas that will be used to power the plant's operation

ethanol plant powered by manure?

Lurgi PSI has been hired by Panda Energy to build the \$120 million facility that should be constructed by December 2006. The plant, once it is in operation, will be the largest biomass powered fuel ethanol refinery in the United States. The plant will convert one billion pounds of cattle manure into a clean burning bio-gas that will be used to power the plant's operation, eliminating the need for natural gas to power the facility and saving an estimated 1,000 b/d of equivalent oil. Panda is also building manure powered ethanol plants in Yuma, Colorado and Haskell County, Kansas.

We once did a story about efforts to harness the flatulence of cows to capture the methane contained in the gas. Little came of that effort. However, we noted that the press release announcing this bio-gas plant points out that it has already received an air permit for the facility from the Texas Commission on Environmental Quality. The permit was the first issued in Texas for an ethanol plant under the state's New Source Review requirements. Did the Texas agency consider the impact of the use of manure as a fuel on the ambient air quality in the area? What will the EPA say, given their chocolate edict?

Peat Becomes a More Economical Fuel in Ireland

High oil and gas prices have made peat a cheaper fuel alternative for residents of Ireland

High oil and gas prices have made peat a cheaper fuel alternative for residents of Ireland. The country has 17% of its land in bogs that are waterlogged land formed during the last Ice Age. Only Finland, Canada and Indonesia have higher proportions of their land in bogs. The turf in the bog is cut into blocks and stacked and regularly turned to allow it to dry out. Peat has been used in Ireland since prehistoric times, but it was not until the 18th century when the British shipbuilding industry deforested the island country that peat became the primary source of energy.

One homeowner said that he would spend about 150 euros for enough peat to run his central heating system and to provide hot water for a year. His alternative would be to use natural gas that, based on the average domestic gas bill after the recent 25% price hike, would cost 946 euros. With this wide of a price discrepancy, it is no surprise that peat's importance in the country's fuel mix has grown. In addition, there have been two new 100-megawatt, peat-fired electric power plants opened by the state-owned Electricity Supply Board that has been generating power from peat since the 1950s.

Environmentalists are concerned about the impact of increased burning of peat since it contains a huge amount of carbon dioxide that becomes greenhouse gases

The greatest problem is that there is a limit on the amount of peat in the country, currently estimated at about 15 years. Environmentalists are concerned about the impact of increased burning of peat since it contains a huge amount of carbon dioxide that becomes greenhouse gases. The bogs are also important refuges for certain vulnerable bird species and various plants. The

environmentalists are facing an uphill battle since the economics of fuel is a strong force. We suspect that this battle will be waged increasingly as people turn to alternative fuels that may not be as environmentally friendly, but are less costly.

Exhibit 6. Worker Stacking Peat Blocks



Source: Reuters

Changing of the Guard

On November 17, Anadarko Petroleum Corporation (APC-NYSE) announced that its chairman, Robert J. Allison, Jr., will resign his office, but will continue to remain a director. Current Anadarko CEO Jim Hackett will become the new chairman. Both moves will be effective on January 1, 2006. The Board of Directors has bestowed on Allison the honorary title of Chairman Emeritus in recognition of his long and distinguished career with Anadarko.

Bob Allison joined Anadarko in 1973 when the company was a small start-up E&P subsidiary of pipeline company, Panhandle Eastern Corporation. He became president in 1976 and CEO in 1979. Panhandle spun off Anadarko in 1986, at which time Allison became chairman and CEO.

From its U.S. mid-continent beginning, Anadarko has grown into a multi-national E&P company

At the time Allison joined Anadarko, it had 150 million barrels of reserves and 280 employees. Today, the company has more than two billion barrels of reserves, 3,400 employees and \$20 billion in assets. From its U.S. mid-continent beginning, Anadarko has grown into a multi-national E&P company.

I remember first meeting Bob Allison shortly after he became president of Anadarko. The meeting took place at Panhandle's offices on Bissonnet close to Rice Village. At the time, I was an investment analyst working for the money management arm of Citibank and following the oil service and gas pipeline companies. I could tell that he was going to grow this subsidiary, although I don't imagine that I thought it could become the company it has under his leadership.

Anadarko has always been a leader in exploration technology, which has contributed to the company's success in finding new oil and gas reserves in difficult locations. The company was one of the leaders

ExxonMobil's Lee Raymond will also be disengaging himself from his company and the oil and gas business on January 1

in developing the seismic technology and analytical techniques to better understanding the sub-salt formations in the Gulf of Mexico. The company also mastered the skills for drilling these wells to tap oil deposits below the salt. At the height of the investment craze over sub-salt in the late 1990s, Anadarko ran a one-day school to educate investment analysts about their acquired expertise and exploration successes. At the time, though, there were some upset partners who believed that they had educated Anadarko employees about sub-salt technology, but were relegated to also-ran status by the investor relations-focused Anadarko management.

As we salute Bob Allison on the new stage of his involvement in the oil and gas industry, we would also note that ExxonMobil's Lee Raymond will also be disengaging himself from his company and the oil and gas business on January 1. As chairman of the world's largest publicly-owned oil company, Raymond has distinguished himself with the financial performance of ExxonMobil under his stewardship, and we salute him for that achievement.

At one time, it was thought in the investment community that Exxon would buy Anadarko to secure its reserves and technology, although many thought Royal Dutch Shell (RDSA-NYSE) needed to do it to off-set their poor reserve replacement record. Neither deal happened, but the oil industry may be better off as each company has continued to make contributions to the evolution of E&P technology, a necessity if we are to solve the global energy challenge.

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