

## ENERGY

INDUSTRY QUARTERLY

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The Energy Industry Practice Group (IPG) of Corporate Finance Associates is pleased to present its First Quarter Energy Newsletter. Interested parties may obtain addresses and contact numbers of members of IPG by accessing our website [www.cfaw.com](http://www.cfaw.com).

## I. Future of Energy

The current Guest Editorial of the Journal of Petroleum Technology by Marc Peters of Planit Energy is quoted as follows:

“Exploration and Production projects are difficult to manage because they require coordinating and executing a vast array of details and complexity such as technical evaluations, risk and uncertainty, management, economic evaluation, finance and many more. The management of E&P projects is becoming more challenging because the industry is faced with producing more difficult hydrocarbons to meet increasing global demand. Production is not only coming in remote areas, in deep water and in harsh conditions, but also in more complex geology from deep oil to tite and sour gas and from unconventional. In addition, projects are subject to stricter regulations and higher standards in order to prevent accidents or to contain, safety and environmental consequences.”

The fifth International Petroleum Technology Conference was held in Bangkok, Thailand in February, 2012. The delegates had a dominant theme at the conference and that was how the oil and gas industry will adapt to future energy demand and the roles that technology and operational excellence will play in years to come. The energy minister of Thailand in an opening address said “It is now imperative to seek out oil in environments what were barely considered feasible in the past; further that natural gas supply and demand are poised to grow faster than oil and the Asia Pacific region will be the largest consumer of oil and gas; The 21<sup>st</sup> century will become the age of natural gas.”

International oil companies are focusing on more complex and extensive projects such as coalbed methane in Australia; deep offshore Angola, the Russian Arctic, tight gas in China, shale gas, tight oil in US, oil sands in Canada. There are technical opportunities for increased production through enhanced oil recoveries, carbon capture and sequestration, Arctic exploration and the development of biofuels.

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## II. Global Energy Supply and Demand

WORLD OIL SUPPLY AND DEMAND <sup>†‡</sup>				
MILLION BOPD	2011			
Quarter	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>
SUPPLY	87.48	86.13	86.98	89.12
DEMAND	86.97	87.03	88.92	88.78

\*Courtesy of JPT March, 2012

The International Energy Agency cut its 2012 oil demand growth forecast for the second time in just a few weeks as Europe's economic outlook weakens. The cutback comes as crude production from the Organization of Petroleum Exporting Countries reached its highest level since October 2008.

The EIA has cut half a million barrels a day from its 2012 oil demand growth forecast since the start of this year, a change that it said leaves the oil market with enough flexibility to adjust to any loss of Iranian crude exports because of sanctions that will take effect in July.

"The big hit to demand numbers for 2012 is Europe's significantly weaker economic picture," David Fye, head of the IEA's Oil Market's Division, said in an interview with Dow Jones Newswires.

The IEA trimmed its forecast for China as economic growth slowed and oil demand nearly stagnated in December.

Japan's oil demand rose 9.5% in December from the year-ago month, as it uses fossil fuels to fill the gap left by shutdowns in its nuclear industry after the earthquake and tsunami last year.

"The market looks reasonably well supplied for 2012," and should be able to handle without too much trouble the European Union embargo on Iranian oil, Mr. Fye said.

The IEA reported that OPEC agreed in December to reduce its output to 30 million barrels a day for 2012, but Saudi Arabia, Kuwait and the United Arab Emirates didn't reduce output in January to make way for increasing Libyan production.

E&P February, 2012 issue addresses the global picture as follows:

"Much has changed in the US and global market the past few years. OPEC members in the Middle East are having issues with maintaining production, especially in light of the political unrest. The Middle East is thought of as a supply challenged region, while the only places with high visibility growth supply is North America. This is evidenced by oil sands, the Bakken, the Eagle Ford and many other plays. Today, North America is the only place where crude supply is seen to be increasing over the next few years, while it is much more uncertain in global markets.

Everyone is trying to get oil to the Gulf Coast where you always have the opportunity to send it to another country if you overwhelm domestic supply. Greater pipeline access to Gulf Coast refineries is imperative to provide North America producing global marketing opportunities.

Now the historical relationship of Brent being a looser supply/demand scenario and WTI being a tighter supply/demand situation is reversed. Today, North America is the only place where crude supply is seen to be increasing over the next few years, while it is much more uncertain in global markets.”

The Oil and Gas Investor reports in its most recent issue on the supply and demand picture as follows:

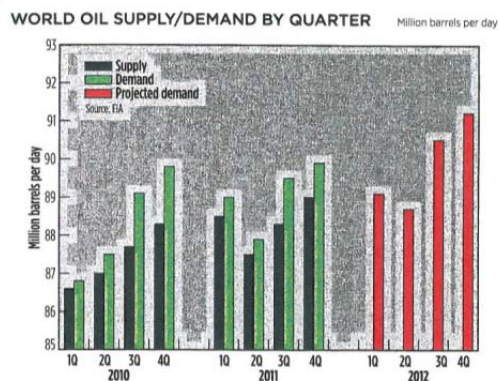
“Despite significant increases in US Crude oil production the past few years, roughly 19.5 million barrels per day of liquids is still imported from other countries. Prices will go up due to (1) rising demand (2) higher production costs (3) investment constraints due to Resource Nationalism (4) fears over production peak (“Hubbert’s Curve”) (5) greater instability in the Middle East (6) policies to limit the extraction and use of petroleum.

Principal concerns are as follows:

The US Energy Information’s (EIA) National Energy Modeling System (NEMS) forecasts that prices could eventually surge to \$200 per barrel. A large portion of U.S. imports comes from OPEC such as its second highest producer ---Iran

U.S. environment policy could send Canada’s heavy crude to China and Mexico.

Despite a strong push to reduce demand the EIA expects domestic consumption to increase by 5% to 20% by 2030. Policies to expand not impede the domestic availability of irreplaceable liquid fuels are vital to national security and to economic growth.

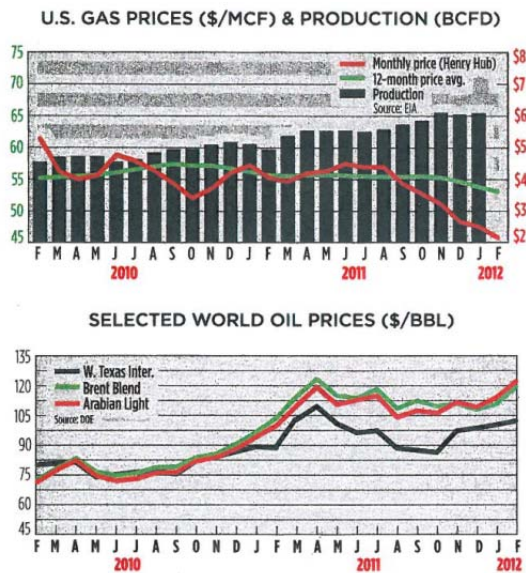


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### III. Pricing

Natural gas prices plunged 6.1% in January, 2012 to its lowest level in 10 years. February settlement was lowered to \$2.322 per million BTU. This was the lowest finish since February 25, 2002 and down 51% from this time last year. By the end of the first quarter the price was \$2.00 per billion BTU.

Oil prices have remained fairly steady at \$100 per barrel range.



### IV. Current Activity

An Eagle Ford horizontal completion by Houston based Burlington Oil and Gas Co. (Conoco Phillips) flowed 7.51 mmcf/d of gas, 1347 b/d of condensate and 456 barrels of water from a fractured-treated interval of 14,128 to 17,650 ft.

Anadarko Pet. Corp's #1 H. Mooney well in Phantom Field in Ward Co., Texas has produced from the Wolfcamp formation at an initial potential of 1,064 b/d of 41.50 oil, 1.71 mmcf/d of gas and 1,320 b/d of water from an acid and fracture stimulated interval at 11,292 to 15,204 ft.

A review of resources at Racksources Trident field in blocks 903, 904 & 947 in Alaminos Canyon in the Gulf of Mexico indicates a significant base. The volume of gross recoverable reserves could vary from 53 to 101 million bbl of oil and 55 to 105 bcf of associated gas.

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Iraq's oil ministry has signed deals with Turkish Pet. International and Kuwait Energy to develop the Eastern Mansouriye and Southern Siba gas fields. The fields have 4.5 TCF and 1.13 TCF of gas respectively.

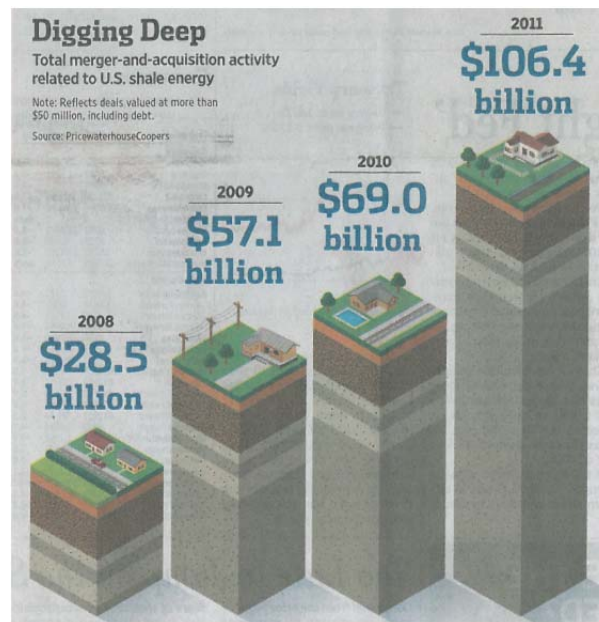
The Jeannie Stell of editorial section of Midstream Business, March publication, reports the following midstream M&A deals:

- The Exxon Mobil acquisition of XTO Energy Inc. was the largest natural gas pipeline network in the U.S.
- Delphi Midstream Partners completed its sale of Laser Northeast Gathering Co., LLC to Williams Partners in a deal for \$329 million in cash and \$7.5 million Williams Partner's units.
- SemGroup Corp., Gauilon Midstream Energy LLC, and Chesapeake Energy Corp. plan a joint venture to build a 210 mile pipeline in Oklahoma to move crude to a new storage in Cushing.
- Dominion Transmission Inc. plans to spend more than \$11.6 billion on new plants and other products in the next five years. Such plans include gathering, processing, and transmission infrastructure to serve production from the Marcellus and Utica Shales.
- Marathon Petroleum Corp. announced that it plans a possible formation and initial public offering of a master limited partnership offering most if not all of its 9,600 miles of pipeline assets, which are valued at \$6.2 billion.

## **V. Outstanding M&A Exploration and Production Deals**

- Transaction between Devon and China Petrochemical Corp. aka Sinopac paid Devon \$2.5 billion for development of several shale fields.
- The French company Total became an investor in Chesapeake Energy's shale holdings when it agreed to invest \$2.3 billion to explore & develop the Utica shale in Ohio.
- BHP in February 2012 paid \$4.75 billion for Chesapeake's Fayetteville gas fields in Arkansas, the largest ever deal for a shale asset and reports that it will triple production over the next decade.
- Exxon Mobil Corp has sold its Japanese refining and marketing business to its Japanese Partner TG Sekiyo KK in a \$3.9 billion deal that reflects a long term decline in Japan's demand for fuel and a global strategy on the part of Exxon Mobil to refocus on global exploration.
- The Wall Street Journal dated February 15, 2012 contained an article entitled Private Equity Drills Into Oil Patch

- “Deal makers are excited because advances in drilling technology such as horizontal drilling and hydraulic fracturing or fracking have made it easier to extract natural gas from shale and other rock formations, creating opening for private equity firms to place big bets in a capital hungry business”. Reference is made to the following graph to illustrate the M&A activity in the U.S. shale business. The experts agree that the time to get in the play was over the past few years; however, recent windfalls indicate the gamble is still worth the effort with energy related investments showing gains of more than 30% in each of the past two years and have beaten industry overseas for 12 of the past 14 years according to Cambridge Associates.
- Private Equity firms completed \$24.8 billion of energy deals last year, nearly triple the \$8.5 billion in 2010 while the value of all deals last year rose 25% as illustrated in the following bar graph:



- Firms typically team up with management groups to lessen risk. Marc Lipschitz of KKR & Co. was quoted as saying “Shale lacks the hit or miss aspect of conventional exploration.”
- An outstanding example of the M&A activity was the acquisition by Apache Corp. of Cordillera Energy Partners III, LLC for \$2.85 billion. It was also reported that KKR spent \$7.2 billion for Samson Investments Co. in one of 2011 largest buyouts.

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## **VI. Alternative Sources of Energy**

As world energy demands continue to increase, the oil and gas industry is moving to develop the less conventional reserves. Technology is opening new exploration options, including heavy oil, which makes up 15% of the world's oil resources. New logging technology to conduct effective production logging in extreme conditions has proved to be effective in Issaran Field located in Egypt's Eastern Desert.

## **VII. Overenthusiasm on Shale Capacity**

This and previous IPG Energy Newsletters have presented the energy independence of the USA. Let's look at the other side of the story.

According to AAPG past president Dick Bishop, there are inevitable limits. Any prediction about production rate has a physical length of time it will last affecting the total reserve. Bishop and his colleagues at Houston based RSK conducted a group study and came up with the following computational model:

- Assume representative decline curves
- Assume drilling statistics
- Assume 100% success ratio of each of sum of wells
- Limit the production by ultimate return (EUR) area of the resource and years to drill resource
- Calculate project and well economies using standard models

This approach will give realistic reserve estimate and return on investment.

## **VIII. Recent M&A Deals in Equipment and Services**

- Feb. 2012 - URS Corporation (NYSE: URS) and Flint Energy Services Ltd. (TSX: FES) announced a definitive agreement under which URS will acquire Flint for C\$25.00 per share in cash, or C\$1.25 billion (US\$1.25 billion). URS also will assume approximately C\$225 million (US\$225 million) in Flint debt. Flint, a leading provider of construction services for the oil and gas industry, currently supports many of the largest companies operating in the oil, oil sands and gas producing regions of Western Canada and in the Southwest, Appalachian and Rocky Mountain regions of the United States.
- April 2012 - Knight Oil Tools announced the acquisition of Cool Group Ltd., headquartered in Aberdeen, Scotland. Terms of the deal were not disclosed. Cool Group Ltd. is the holding company that owns Global Rentals, a provider of downhole drilling tools such as the Megaton™ drilling jars, fishing jars, energizers, shock tools, bumper subs, drilling safety joints and under reamers and Pedem, the tool design and manufacturing unit for the company's products.

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Knight Oil Tools has been the exclusive licensee of the Megaton drilling and fishing jars in the U.S. since 2010 and manufactures Megaton drilling jars at its Broussard, LA manufacturing facility.

- April 2012 - Schlumberger announced that it has acquired GEDCO, a Calgary-based provider of integrated geophysical survey design software and services. The group will become part of the WesternGeco business unit.

GEDCO has developed OMNI 3D\*, the industry's standard for seismic survey design and modeling, and VISTA\*, a flexible 2D/3D seismic data processing package. The group also offers consulting services for 2D and 3D seismic and vertical seismic profile (VSP) solutions from design through interpretation.

- April 2012 - TETRA Technologies announced that it has acquired Eastern Reservoir Services (ERS), a division of Patterson-UTI Energy, Inc., for \$42.5 million in cash.
- ERS is a leading provider of frac flow back services to oil and gas operators in Appalachia and the U.S. Rockies.. ERS has operating locations in Pennsylvania, West Virginia and Colorado. From these bases the company serves oil and gas exploration and production companies in the Marcellus and the emerging Utica shale plays and in the U.S. Rockies.
- April 2012 - Cameron has agreed to acquire the drilling equipment business of TTS Energy Division from TTS Group ASA in an all cash transaction valued at \$270 million. The transaction is subject to customary closing conditions, including review and approval by the Norwegian Competition Authorities (NCA). The transaction is expected to close during the middle of 2012.

TTS Energy Division delivers high performance drilling equipment, rig packages and rig solutions for both the jack-up and onshore rigs to the international energy industry. TTS Energy products include drilling rig control systems, top drives, traveling blocks, automated pipe handling, iron rough necks, draw works, derrick structures, drill floor tools, fingerboards, BOP handling equipment, deadline anchors, and drill line spoolers.

- April 2012 - Schlumberger has announced that it has entered into an agreement with National Oilwell Varco, Inc. (NOV) to sell its Wilson distribution business. Schlumberger acquired Wilson International Inc. as part of the acquisition of Smith International in 2010. Closing of the transaction is subject to customary regulatory approvals.

Founded in 1921, Wilson is a leading distributor of pipe, valves and fittings as well as mill, tool and safety products and services to the international energy business and to other industrial customers. The company manages a distribution business of approximately 200 sales and operations locations across the United States with a growing presence in other key international geographies. Wilson employs approximately 2,500 employees as a standalone Schlumberger business unit.



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- April 2012 - National Oilwell Varco, Inc. (NOV) announced the closing of its previously announced acquisition of NKT Flexibles I/S (NKT), a Denmark based designer and manufacturer of flexible pipe products and systems for the offshore oil and gas industry.

Pete Miller, Chairman, President and CEO of National Oilwell Varco, stated: "The integration of NKT's highly technical design capabilities and NOV's Rig Technology will be a compelling combination in the offshore production market. NKT will notably escalate our position in Floating Production, Storage and Offloading vessel market.



The Energy Practice Group is a multi-disciplinary group of investment banking advisors within Corporate Finance Associates. Collectively, the Energy Practice Group provides M&A advice to independent and integrated energy companies in all sectors of the energy industry, including power generation, oil & gas, utilities, mining and natural resources, renewable energy and businesses that serve the energy industry, in all aspects of oil and gas land-based transactions, mergers, acquisitions, joint ventures and financial resources. For more information contact your local Corporate Finance Associates office.

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