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UPSTREAM COMPANIES TO WATCH



A supplement to

Oil and Gas
Investor

March 2008



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Charting the Future:

UPSTREAM COMPANIES TO WATCH

WATCHING VALUE CREATION

Every few years the pundits declare the market sector apt to outperform the S&P 500 going forward. Will it be the large-cap stocks or small- and mid-caps, value-oriented companies or those exhibiting growth? Will it be conservative companies that stick to repeatable domestic plays such as the gas shales or hardier companies willing to commit drilling dollars abroad?

To our way of thinking, the small, but typically fastest-growing E&Ps represent good buys nearly all the time, no matter which specific strategy they employ. Depending on the size and age of a company, some may be more solid than others; some may be more risky. But it is easier to show reserves and production growth when small. It is far easier to make a breakout move that attracts heightened investor attention, whether that turns out to be a great new discovery or a company-making acquisition.

Most of these companies are on the march to eventually selling out to a far-larger independent, but they are bound to show impressive growth along the way, or they would never become enticing to the larger buyers. Why not march along with them, enjoying increased cash flow and earnings along the way?

It is not uncommon in acquisitions to watch a company with a market cap of under \$100 million successfully buy reserves that triple or quadruple its size. The financial markets have devised numerous ways to enable savvy management teams to bite off bigger and bigger chunks.

This special report enables you to get up to speed on a variety of companies that bear watching more closely. First, three analysts share their thoughts on 2008, which companies they are watching and why. The companies are pursuing growth through different avenues—some that we spotlight have chosen to grow exclusively in the shale plays; six others are focused solely on international E&P opportunities. Finally, we profile a company that has made a transformative merger.

There is no point in watching these E&Ps from the sidelines.

—Leslie Haines, Editor-in-chief

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With a transformative acquisition, Tulsa's Ram Energy Resources takes its growth strategy by the horns.



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Outlook for E&P Firms Still Bright

Three top upstream analysts identify their key stock picks for 2008.

INTERVIEWS BY GARY CLOUSER, Contributing Editor

Buoyed by rising commodity prices, oil and gas exploration companies of all sizes enjoyed phenomenal success through the first seven years of this decade. But, 2008 has arrived with a different tenor, bringing with it increasing economic volatility and worries about a deepening U.S. economic slowdown that may affect the energy industry.

Identifying investment themes and the companies best positioned to take advantage of them remains the crucial task. To gauge the outlook, Oil and Gas Investor interviewed three top analysts who track E&P stocks, with particular expertise on smaller-cap companies. We asked for their views on supply and demand fundamentals and their commodity price outlook. They also outline their evaluation metrics, identify companies about which they are particularly bullish and explain reasons for their optimism.

Larry Busnardo, vice president and director, institutional research, Tristone Capital (USA) Inc., based in Denver; Joel Musante, senior research analyst, C.K. Cooper & Co., based in Irvine, California; and Mark Lear, equity analyst, Sidoti & Co. LLC, in New York, participated in the roundtable.

Investor Before we get into specific picks, tell us a little about your 2008 macro outlook for the oil and gas industry. What are your price forecasts for oil and natural gas?

Larry Busnardo We've seen natural gas fundamentals tighten over the last few months, driven largely by colder domestic weather and nuclear outages in the U.K. and Japan that have drawn LNG (liquefied natural gas) spot cargoes away from the U.S., which were counted on to provide an additional source of natural gas. Looking into 2008, major new LNG liquefaction delays have moderated our views on incremental imports to the United States, while world gas demand is likely to increase, again supporting higher domestic prices.

Regarding crude, we believe there's some downside risk associated with the direction of the U.S. economy. However, worldwide demand has increased and likely will continue to be driven by key areas such as China and the Middle East, where capital investment drives non-OECD demand. With crude supply set for this winter, we envision OPEC having a tightening bias when they next meet.

We are forecasting \$7.50 per Mcfe (thousand cubic feet equivalent) for gas and \$80 a barrel for oil, in both 2008 and 2009.

Joel Musante Our outlook for oil prices is \$70 a barrel in 2008 and 2009, which is more bullish than for gas prices of \$6.50 per Mcf in 2008 and \$6.75 in 2009. We think demand



Larry Busnardo, Tristone Capital (USA) Inc.

from China will continue to put pressure on oil prices, while supplies from non-OPEC sources continue to decline. In fact, the International Energy Agency is projecting that oil demand in China will grow at an average rate of more than 5% per year to nearly 10 million barrels per day in 2012.

Natural gas prices, on the other hand, will likely be weaker due to high storage levels, an increasing number of global LNG cargoes and a high level of domestic drilling activity. We think gas prices will hover between \$6 and \$8 per Mcf. Higher-cost unconventional E&P operations will provide a price floor. A greater number of global LNG cargoes will be attracted at the higher end of the range, providing a ceiling on gas prices.

Mark Lear For oil, we think \$78; for natural gas, \$7.30. While we are forecasting a decline in oil prices from late-2007 peak levels, reflecting concerns with the U.S. and global economies, we think the longer-term prospects for the small-cap E&P sector remain positive. A \$70-plus crude oil and

\$7-plus natgas environment is very favorable for our small-cap E&P group, providing rates of return that will stimulate further investment in upstream development in the current service-cost environment.

Investor It appears when all of the numbers are in that 2007 will have the largest increase in domestic natural gas production in more than a decade. Most of the increase is attributed to the growth of so-called unconventional gas resource plays, such as the Barnett, Fayetteville and Woodford shale plays. How does this increase in gas production (with a growing emphasis on unconventional gas resources), affect your thoughts about the natural gas industry at large and your evaluations of individual stocks?

Lear The EIA data shows that through October 2007, there was a 3.7% increase in domestic gas production. That's the most since 1994, when there was a 3.8% increase. The only other years during that period that showed an increase were a 1.4% increase in 2001 and a 0.7% in 2003.

Despite the strong growth in gas supply in 2007, it is growth coming primarily from unconventional sources that keeps us bullish on long-term gas prices. More wells must be drilled to offset the high initial decline rates that are found in shale and tight-gas type-wells, and the higher costs associated with this type of drilling make projects marginal with natural gas trading sub-\$6 per MMBtu.

Busnardo The growth in production is due to oil and gas companies stepping up their development programs that are underpinned by higher commodity prices. I would say that the Barnett shale and other resource plays have had the single most impact on supply as it continues a steady ramp-up in volumes. The Fayetteville is probably second, with industry still trying to crack the code in the Woodford shale. I believe the Marcellus shale in the Appalachian Basin has the greatest potential to positively impact the gas industry in 2008.

Companies that are active in these resource plays have been accorded higher multiples as they have typically shown the highest growth potential in our group. Property transactions of unconventional resources have driven up valuations as companies have been willing to pay significantly higher metrics for the more visible upside of these assets.



Musante Production from wells drilled in these areas comes on rapidly, but declines very quickly. Independent company EOG Resources estimates that decline rates in the U.S. have hit 32% per year. That is to say, if drilling activity stopped, the production rate in the U.S. would decline by 32% over a year. With these types of decline rates, it is important to maintain the level of drilling, even if the production level rises. If gas prices weaken due to greater supplies or lower demand, the larger E&P companies tend to cut back production in their less profitable areas.

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Investor How do you define small-cap and mid-cap? Are the past performances and outlook for 2008 of small-cap and mid-cap companies the same, or is there a difference in the outlook?

Busnardo We define small-cap as a market capitalization of up to \$4 billion, mid-cap of \$4- to \$10 billion and large-cap is \$10-plus billion. We tend to group the small- and mid-caps together in our comps [comparative analyses] and compare them to the large-cap stocks. In our case, the large-cap group only slightly outperformed the small/mid-cap group during 2007, posting a 45% increase in value, while the small/mid-cap group increased by 43%. Of note, this is significantly higher than the S&P 500 return during the same time period of just 4%.

Lear I only follow small-cap names in the E&P space, which we define as having market capitalization below \$2 billion. The small-cap E&P sector underperformed the broader energy sector in 2007. The mean return for a broad small-cap E&P group we track was roughly 10% in 2007, compared to a minus 4% return for the Russell 2000 and a 35% return for the XLE (energy sector SPDR).

The E&P sector is extremely capital intensive. The market places tough demands on the group to make sure capital is allocated appropriately and that such investments are resulting in production, reserve and cash-flow growth (value creation). So, small-cap names required to tap the capital markets to make up the short-fall between 2008 capex budgets and cash flow from operations have especially taken it on the chin. But a number of E&Ps with solid balance sheets and large organic growth opportunities that continue to post strong production and cash-flow growth have also been hit hard in early-2008 trading, and here is where we find the best investment opportunities.

Investor Interest rates have been lowered, and appear to be headed still lower. What impact would that have on the small-cap E&Ps' financial performance?

Musante Lower interest rates will likely weaken the U.S. dollar and make domestic natural gas more competitive with Canadian and LNG imports. This will improve fundamentals for domestic natural gas and be favorable for small-cap domestic E&Ps.

Busnardo Arguably, the ability to access capital is the most important factor to small- and midcap companies, specifically those in the unconventional arena, as they are primarily in early-stage growth. With rates coming down, the cost of capital should retreat and capital should become available to those companies that have solid balance sheets and are not overly leveraged.

Investor Before turning to specific companies, what metrics do you use to value E&P stocks?

Busnardo When comparing companies within our sector,

\$100 OIL

What did these three analysts think when oil prices crossed the \$100-a-barrel mark in the first week of January? Was that milestone price an anomaly, or the shape of things to come?

Larry Busnardo One year ago, we were predicting oil would average \$68 a barrel for 2008, followed by \$55 long-term, which was generally in line with the rest of the industry at that time, so you could say we're a bit surprised by today's levels. On the flip side, our current forecast calls for 2008 and 2009 oil to average \$80 a barrel and \$75 after that, based on tighter oil fundamentals. So, in our view, \$100 oil was an anomaly. It was prompted by many non-controllable factors such as political unrest and other geopolitical events. Our price decks are supported by our beliefs of both near- and long-term supply/demand fundamentals, which point to sub-\$100 oil, in our opinion.

Joel Musante I was not surprised, given the volatility we've seen, the political uncertainty in the Middle East and the growth in oil demand in China. It re-affirmed my view that the days of cheap oil are behind us. We think secondary and tertiary recovery operations in mature oil fields and the development of unconventional deposits like the Canadian oil sands will become more valuable.

Mark Lear I was not anticipating the rapid move to \$100 per barrel of crude oil. While a number of geopolitical risk factors continue to threaten supply, we argue that the move did not reflect the supply/demand fundamentals. OPEC left production unchanged at 27.2 million barrels per day at its December 5 meeting, as it continues to argue that the world oil market is adequately supplied for winter demand. The International Energy Agency projects crude supplies remaining in line with five-year averages, with OPEC leaving the production quota stable through 2008. While we were surprised that OPEC did not increase supply—if not just to signal to the market that it still has the capability to do so—we think the cartel does have a valid argument that the recent spike in crude oil is not because the market is not adequately supplied. •

we tend to look at a combination of price-to-cash-flow per share, enterprise value (EV) to debt-adjusted cash-flow, enterprise value per Mcfe and discount to net asset value (NAV).

Musante We like to look at finding and development (F&D)

Performance Measures

Analyst	Evaluation metrics
Larry Busnardo	Price/cash flow, Enterprise value/Debt-adjusted CF, EV/Mcfe, Discount to net asset value (NAV)
Joel Musante	Finding and development costs, Production growth rate
Mark Lear	Production and reserve growth, F&D costs, EV/proved reserves, EV/Ebitda, P/DCF

costs and production growth rates. However, many less-mature, small E&P companies do not have a significant track record, in which case these metrics are less meaningful. Often times with a smaller E&P, it is the performance of a particular development area that is most important.

Lear In the small-cap E&P sector we are looking for names that are able to demonstrate strong production and reserve growth, while doing so with peer-group-low F&D costs. We're primarily looking for companies that trade inexpensively compared to our net asset value estimate; and secondly, on relative-value metrics like EV/proved reserves, EV/EBITDAX (earnings before income taxes, depreciation and exploration expense) and price to discounted cash flow, or P/DCF.

Investor Larry, name your top small- or mid-cap pick.

Busnardo Cabot Oil & Gas (COG). This is an under-appreciated story that has successfully transitioned away from the Gulf of Mexico/Gulf Coast region, and we like its exposure to several growth areas that will underpin 8% to 12% production growth over the next several years. In addition, a large inventory of drilling opportunities in Appalachia and East Texas provides a visible, multi-year drilling program.

Investor How does the stock hold up in terms of your valuation metrics?

Busnardo COG trades at a slight discount to its peers on



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Investor Joel, what is your top pick and why?

Musante Cano Petroleum (CFW). This company is in the early stages of performing several waterfloods on mature oil fields in Texas. The stock trades very cheaply on an enterprise value per unit-of-proved reserves. The company initiated a waterflood in its Texas Panhandle property, and we expect an oil response from this operation in March or April. While there are analog fields in the same reservoir nearby that give us reason to believe the waterflood will work, we think an oil response from the field will be the catalyst that moves the stock.

Investor How does it compare with your valuation metrics?

Musante The company does not have a long operating history, so F&D costs and production growth are not good valuation metrics for this stock. The value of the stock will greatly depend on the performance of the waterflood at the Panhandle property.

Investor What is the price target for your selected stock?

Musante Our target price for Cano is \$11, which is based on our estimated NAV of the company's proved reserves. We are using an \$8- to \$10-per-BOE unit valuation to derive the asset value for most of the proved reserves. Most companies trade at upward of \$15 per BOE or more on a proved asset basis.

Investor Mark, what's your pick and why?

Lear Our top pick is Arena Resources (ARD), with a \$50 price target. When numbers are in, we anticipate ARD will have delivered 40% proved reserve growth at a minimum in 2007. What's more, the company has a project inventory that we estimate supplies over 100 million BOE of low-risk probable and possible reserve potential. This should allow the company to more than triple its proved reserves, which stood at 43 million BOE at year-end 2006, in the next five years.

Analogous development surrounding ARD's legacy Fuhrman-Mascho Field in West Texas strongly suggests the company will benefit from infill drilling and secondary recovery, as neighboring operator Range Resources has not encountered any variance in oil recovery when increasing well densities from 20- down to 5-acre spacing. ARD still has a large inventory of 20-acre wells to drill before focusing on denser drilling, and our NAV estimate has yet to credit the company with 5-acre potential. Arena also recently finalized an agreement with a midstream company that should facilitate shallow gas production in the



Joel Musante, C.K. Cooper & Co.

Fuhrman-Mascho by early 2009.

Investor Compare that stock's performance to your valuation metrics.

Lear ARD had a great 2007, benefiting from its oil-leveraged production profile and the strong move in crude. The stock trades at roughly a 37% discount to our NAV estimate, in line with the peer group, but we argue with management's proven track record of value creation and the quality of the company's assets, the stock should command a premium to the group.

Investor Larry, which stock is second among your picks?

Busnardo Forest Oil (FST) has a solid growth outlook, attractive valuation, solid balance sheet and is a free-cash-flow generator. We also view Forest Oil as a defensive stock given management's ability to maintain costs and generate growth in a challenging operational environment. FST's inventory of over 5,000 locations holds a net un-risked reserve potential of 2.8 trillion cubic feet equivalent (Tcfe). We view this portfolio approach favorably as it diversifies the risk profile. Forest Oil currently trades at a discount to its peers in all valuation metrics.

Investor Any other small-cap and/or mid-cap ideas you particularly like?

Company	Ticker	EPS Estimates (Earnings Per Share)		CFPS Estimates (Cashflow Per Share)		Mkt. Price 12/31/07	Current 12 Month Price Target
		2007	2008	2007	2008	12/31/07	
Cabot Oil & Gas	COG	\$1.63	\$1.52	\$4.56	\$4.64	\$40.37	\$50.00
Forest Oil	FST	\$2.88	\$3.46	\$9.40	\$11.29	\$50.84	\$65.00
Cano Petroleum	CFW	-\$0.27	\$0.00	\$0.09	\$0.29	\$6.89	\$11.00
Evolution Petroleum	EPM	-\$0.01	-\$0.03	-\$0.44	\$0.01	\$5.67	\$9.00
Arena Resources	ARD	\$1.13	\$1.46	\$2.23	\$2.91	\$41.71	\$50.00
Warren Resources	WRES	\$0.22	\$0.55	\$0.44	\$0.98	\$14.13	\$20.00

These stocks are among those cited as favorites for 2008 by upstream analysts.

NOTE: CFW and EPM report on a fiscal year ending 6/30.

Busnardo We also like Delta Petroleum (DPTR), based on recent success at its high-potential Greentown prospect in Utah's Paradox Basin, and Quicksilver Resources (KWK), given its exposure to the Barnett shale in Texas.

Investor Joel, what is your second pick, and why?

Musante Evolution Petroleum (EPM). This is another start-up company, so F&D costs and production growth are not good valuation metrics here. We have a \$9 target price on this stock, which is largely a function of the company's interest in the Delhi Field, a large, mature oil field in Louisiana. Evolution sold the field to Denbury Resources for \$50 million and retained 27% interest in it—after purchasing the field for about \$3 million several years earlier. Denbury plans to perform a CO₂ flood in the field, which is estimated to yield an additional 45- to 60 million barrels of oil, or about 12- to 16 million barrels net to Evolution's interest. We're looking forward to seeing how this shrewd management team builds an E&P company with cash received from the proceeds of the sale, and given their interest in Delhi Field.

Investor Mark, are there any other small-cap stocks that have caught your eye?

Lear Warren Resources (WRES), with a \$20 price target. Warren's two core assets are in California's Wilmington Field and Wyoming's Atlantic Rim. They will fuel peer-group leading production growth in 2008.

WRES recently resolved transportation and emission issues in California that will allow it to continue to grow production from its waterflood operations, and management is enthusiastic about tertiary recovery potential in the field as well. In the Atlantic Rim area, WRES and its joint-

venture partners, Anadarko Petroleum and Double Eagle Petroleum, received approval from the Bureau of Land Management to begin full-scale development in May 2007—after a six-year wait. We estimate the Atlantic Rim provides WRES with in excess of 500 Bcf of risked-reserve potential, more than doubling the company's proved reserves, which were 349 Bcfe at year-end 2006. Trading at roughly \$2 per Mcfe on the basis of EV/proved reserves, we do not think the stock reflects the production and reserve growth potential from these assets.

Investor Any other stocks you particularly like?

Lear We also like Rosetta Resources and NGAS Resources. With Rosetta, the litigation risk [with its former parent, Calpine Corp.] has clearly overshadowed the company's strong E&P fundamentals. We argue the company paid more than fair value for Calpine's E&P assets back in 2005, and Calpine's emergence from bankruptcy in February should expedite the resolution of Calpine's fraudulent conveyance claim.

Meanwhile, Rosetta is trading at roughly two times our 2009 DCF estimate of \$7.66 per share, compared to the peer-group median of five times. We think the stock is worth \$28 per share, derived from our NAV estimate.

For NGAS Resources, our target price is \$11 per share. The company controls more than 300,000 net acres in the Appalachian Basin in eastern Kentucky, where we are confident it will benefit from the improved project economics of horizontal drilling in the Devonian-age Huron shale. •

**Note: Interviews took place in late January 2008 and reflect analysts' views at that time. Tristone Capital (USA) Inc. served as a co-manager of a public offering of securities for Delta Petroleum Corp. within the past 12 months.*

In Pursuit of Unconventional Gas

Meet three companies increasing their focus on shales and other plays that need horizontal drilling and multiple fracture jobs.

BY KELLY GILLELAND, Contributing Editor

Unconventional gas plays continue to intrigue the energy industry, with shale gas exploration expected to usurp coalbed-methane E&P efforts by the end of the decade. Technology advances and enhanced understanding of reservoir recovery are increasing.

Shale gas exploration is older than the U.S. oil industry itself. The first recorded production came from an Appalachian Basin well drilled in the 1820s. The U.S. currently produces 30 trillion cubic feet of gas a year from all sources, but as this production continues to decline, unconventional gas production is coming to the forefront.

Shale gas comes with its own set of challenges and rewards. *Oil and Gas Investor* asked three active independents to share their shale gas strategies.

APPROACH RESOURCES INC.

Headquartered in Fort Worth, Texas, Approach Resources has grown through the drillbit since its formation in 2002, says company president and chief executive Ross Craft. Approach has gone from “zero reserves and production to a company with over 170 Bcfe [billion cubic feet equivalent] of proved reserves and average daily net production of over 23 MMcfe [million cubic feet equivalent] a day,” he says.

Approach has operations in west and east Texas, northern New Mexico, southwestern Kentucky and eastern British Columbia. The company completed a \$106-million IPO in November 2007 and trades on the Nasdaq Global Market under the ticker symbol AREX.

The core technical team at Approach has been working



Left to right: Drilling superintendent Ricky Trammell; president and CEO Ross Craft; and senior vice president of operations Glenn Reed take a break from studying well logs from Approach's North Bald Prairie prospect in Limestone County, Texas. (Photo courtesy of Approach Resources)

tight-gas fields together for more than 20 years. After building and selling two other tight-gas-focused companies, Craft and his team at Approach farmed into 45,000 acres in the Ozona Northeast Field in 2004 in Crockett and Schleicher counties, Texas. The Canyon sands are the primary target with Wolfcamp shale adding up-hole potential.

Using its technical expertise in the area, Approach customized a carbon dioxide foam frac for Ozona Northeast and has now drilled 300 wells there. These cost \$720,000 to drill and complete, and have an average estimated ultimate recovery (EUR) of 480 MMcfe.

“Ozona Northeast is our bread and butter,” says Craft, “and the cash flow engine that will support our higher-return, developmental drilling in Cinco Terry and East Texas.”

Approach’s Cinco Terry project is a 22,000-acre Wolfcamp, Canyon and Ellenburger play two miles northwest of Ozona Northeast. With 18 wells drilled, this prospect is still in its early stages.

“The beauty of Cinco Terry is that the Canyon production is very similar to Ozona Northeast, but there is Ellenburger potential just 200 feet downhole,” says Craft.

Early drilling in Cinco Terry has yielded positive results throughout multiple producing zones from 3,000 to 8,200 feet. Estimated EURs (estimated ultimate recoveries) are ranging from 514 MMcfe to almost 2 Bcfe per well. Drilling and completion costs run between \$700,000 and \$850,000.

Initial producing rates have ranged from 300,000 cubic feet and 50 barrels per day to 1.6 MMcf and 100 barrels a day.

“Wells like what we currently are drilling in Cinco Terry will give us IRRs north of 50%, and we will take that all day long” says Craft.

Approach has identified more than 120 drilling locations in Cinco Terry.

In July 2007, the company entered into a 13,600-acre joint venture agreement with EnCana Corp. in Limestone County, Texas, to drill Cotton Valley and Bossier sands, and Cotton Valley Lime wells. The North Bald Prairie Field is next to XTO Energy Corp.’s Bald Prairie discovery. Approach says it is pleased with the initial results from the five wells drilled to date, although the project is still in early days.

Craft believes wells in North Bald Prairie can yield average EURs of about 1.5 Bcfe with drilling and completion costs of slightly less than \$2 million, which can generate 40% IRRs. The company has identified 58 drilling locations in North Bald Prairie.

EMERGING PLAYS

In addition to its development drilling projects, Approach has a substantial inventory of emerging, unconventional plays. These include 90,000 acres in Rio Arriba County, New Mexico (Mancos shale), 74,000 acres in southwestern Kentucky (New Albany shale) and a non-operating working

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interest in 33,000 acres in eastern British Columbia (Montney tight-gas and Doig shale).

Approach's capital budget for 2008 is \$64.3 million. About 46% of the budget is for 40 wells in Ozona Northeast, 22% for 12 wells in North Bald Prairie, 17% for 24 wells in Cinco Terry and 15% for its exploratory drilling, land, and geological and geophysical costs.

In 2008, the company will keep three rigs running in its development plays and one or more in its emerging plays. Craft conservatively expects to grow organic production by 15% to 20% in 2008.

"Our strategy is to stick with what we know and do best, which is predictable, low-risk drilling in tight gas and shales," says Craft.

The company will continue to drill primarily vertical wells in 2008. However, Approach plans to drill at least one horizontal Wolfcamp well in Cinco Terry and up to three horizontal New Albany shale tests in southwestern Kentucky during the year. Also under evaluation for potential horizontal drilling is the North Bald Prairie prospect, which would target the Cotton Valley/Bossier intervals.

Despite a stock price increase since its IPO came public at \$12 per share last November, Craft thinks Approach is still flying under the radar screens of many Wall Street players.

"Our business model was very well received during the IPO," says Steve Smart, executive vice president and chief financial officer. "When you have a stable asset base, can drill your development projects out of cash flow and have a clean balance sheet, investors will take notice."

"Of the company's \$50 million capital expenditure budget for 2008, the bulk, or \$44 million, will be spent on unconventional prospects."

—William Daugherty,
NGAS Resources Inc.

"The only thing we can do about the market is execute on our plan, and the rest will take care of itself."

NGAS RESOURCES INC.

With a primary focus on the Appalachian Basin, Lexington, Kentucky-based NGAS Resources is pursuing an aggressive E&P program targeting several types of unconventional gas plays.

"We drilled our first well in 1989 in the southern Appalachian Basin," says president and CEO Bill Daugherty.



William Daugherty, NGAS Resources Inc.

"The area was appealing because of the high completion rate and low operating costs, as there was no water production in the pay zone. Also important, the high quality gas produced here commands a 17% premium to the Henry Hub Market [gas price]."

"As we became more experienced in the Appalachian Basin, we selected an area that had not been developed due to pipeline restrictions and coal mining (both surface and underground). Building on our success in the southern Appalachian area, we have also acquired non-operated interests in central West Virginia and also in the Arkoma Basin, where we are drilling horizontal wells in the Hartshorne coals. The wells in Arkoma can be drilled horizontally 20,000 feet on 400-acre well spacing with current technology."

Of the company's \$50 million capital expenditure budget for 2008, the bulk, or \$44 million, will be spent on unconventional prospects, and \$6 million has been allocated for infrastructure in the southern Appalachian Basin and the New Albany shale.

Daugherty says the company plans to drill two horizontal wells in the Devonian shale in the first quarter of 2008.

"Equitable Resources has drilled nearly 100 horizontal wells with success in Kentucky, and several are near our acreage. If our initial two test wells are successful, we could potentially drill 15 to 20 horizontal wells in eastern Kentucky in 2008," he says.

NGAS is also focusing on a New Albany shale play in western Kentucky. The company drilled 30 test wells there in 2005, and has since drilled an additional 20 wells.



NGAS is drilling more shallow shale-gas wells in Kentucky.
(Photo courtesy of NGAS Resources Inc.)

“We are installing gathering and nitrogen extraction facilities that will be operational this quarter,” Daugherty says. “We plan to drill another 30 wells in the New Albany shale in 2008.”

The 600-mile gathering system in the southern Appalachian Basin represents a multi-year, \$60-million investment designed to service 275,000 acres of leases in the area, plus another 200,000 acres of undeveloped properties, he says.

“Our investment in the gathering system allows us to continue development without worry of having our gas shut-in. Over 82% of our gas produced in this area flows directly from the wellhead to the interstate pipeline system. When Fonde, a pipeline addition that opens 50,000 acres to additional development, is complete, that number will rise to over 90%,” says Daugherty.


The gathering system connects the majority of the company’s wells to the interstate pipeline system with access to major natural gas markets in the eastern U.S. It includes a 116-mile open-access system that spans parts of southeastern Kentucky and southwestern Virginia and connects to Spectra Energy’s East Tennessee Natural Gas interstate pipeline system. The remainder of the 484-mile system is closed to other operators and serves the company’s producing assets in the southern Appalachian Basin.

2007
Production 28 Bcfe
Reserves 686 Bcfe

2006
Production 16.9 Bcfe
Reserves 323 Bcfe

2005
Production 13.7 Bcfe
Reserves 270 Bcfe

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“Because we restrict third-party access to these facilities, we enjoy competitive advantages in acquiring nearby acreage not yet developed,” he says.

TECHNOLOGY VS. COSTS

NGAS also benefits from much of the latest technology coming from other unconventional plays, which Daugherty says “gives us a huge advantage over what we had to work with even a few years ago.

“Completion technology has also changed, and is a big driver. We typically frac our Appalachian wells with 1.5 million standard cubic feet of nitrogen and 70,000 pounds of sand for proppant.”

Well costs have continued to increase, however, and NGAS expects a 3% cost increase this year.

“Our cost to drill and complete a well in the New Albany shale in western Kentucky is approximately \$200,000,” Daugherty says. “Appalachian wells are ranging between \$250,000 and \$400,000, depending upon the depth (3,300 feet to 6,000 feet) and the completion technique.”

By contrast, Devonian shale horizontal wells run as high as \$1.2 million completed. The major advantage to horizontal drilling in the Devonian shale, Daugherty says, is first, it allows NGAS the flexibility to develop gas reserves around coal mining operations with fewer wellbores to penetrate the coal zones, and second, production and reserves are substantially enhanced, when compared with the costs and results of vertical drilling.

“The coal operators like the idea, and we have more flexibility to move the vertical part of our well to minimize coal sterilization,” he says.

Because the company’s Appalachian acreage is still largely undeveloped, the company maintains a multi-year inventory of drilling locations for future development.

“While remaining focused on the Appalachian Basin, we look for additional strategic drilling opportunities to increase our production and reserves in other basins with the same sort of unconventional pay zones that we target in the Appalachian Basin,” Daugherty says.

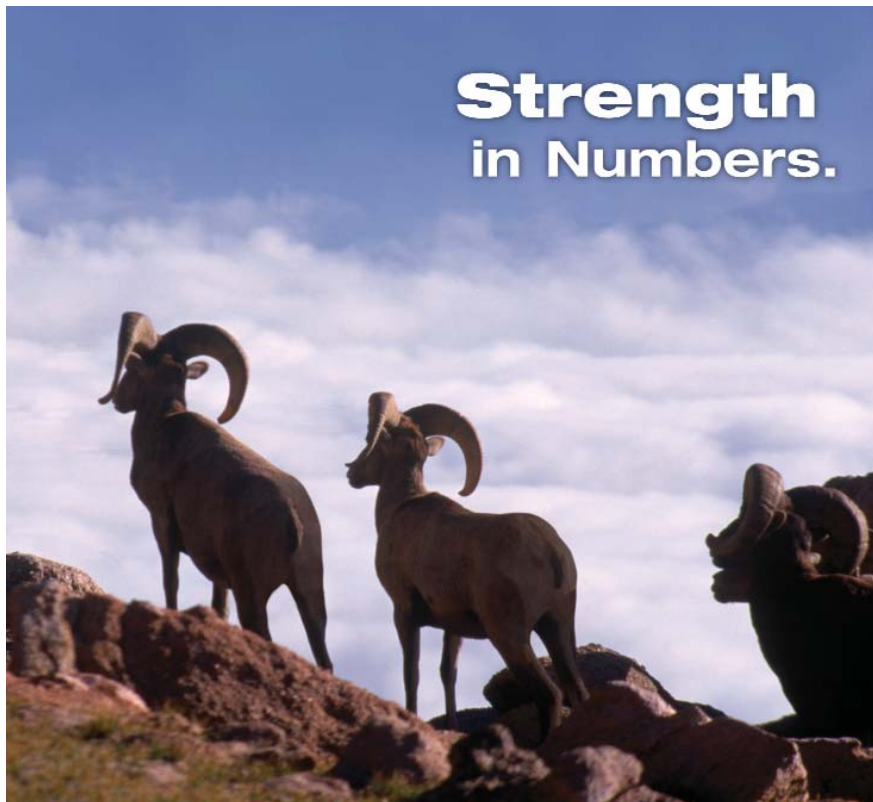
“I am very excited about the outlook for NGAS. Our investments in drilling and infrastructure have enabled us to continue increasing production. Our gathering system now extends 600 miles and is a key competitive advantage for us.

“We have a keen interest in horizontal

drilling in the Devonian shale, and we see substantial upside for the company. With our extensive acreage position in the southern Appalachia Basin, horizontal drilling could provide significant production and reserve increases.”

NGAS Resources’ common stock is traded on the Nasdaq National Market under the symbol NGAS.

“With respect to financing, we have been able to successfully raise funds as we needed to. There are currently five analysts who actively follow us, and all have their top rating on the shares, so, in that respect, we get a lot of support from Wall Street.”




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To fuel future growth, we also have more than 110,000 net undeveloped acres, including 70,000 net acres in several of the most sought after unconventional shale plays.

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PETROQUEST ENERGY INC.

PetroQuest Energy Inc. also sees the upside potential of unconventional gas plays and has taken steps to prove it. The Lafayette, Louisiana-based independent expanded its traditional exploration focus outside of its south Louisiana and shallow Gulf of Mexico base to include unconventional gas prospects in the Arkoma Basin and East Texas.

“We decided in 2003 to transition from an exclusively Gulf Coast company to one with long-lived, unconventional reserves that would complement our Gulf Coast properties,” says vice president of corporate development Todd Zehnder. “As of today, we have a presence in the Arkoma Basin—specifically the Woodford and Fayetteville shales—and also in East Texas.”

Teaming up with or buying small private companies to get into the respective areas as well as enhancing its positions through leasing efforts facilitated PetroQuest’s entrance into each of the areas.

“Our single biggest driver for this transition was to diversify the company and mitigate risk. We believe these unconventional trends are a healthy balance to our Gulf Coast assets,” says Zehnder.

Current plans call for spending more than 50% of the company’s 2008 budget—or more than \$100 million—in the Arkoma Basin. The Woodford shale will be the largest component of the company’s capital program, “due to our significant acreage position and the fact that we operate a large portion of our acreage,” he says. “We plan to spend about 15% of the budget in East Texas. Any reserve or acreage acquisitions would be on top of these amounts, and we are aggressively pursuing additional unconventional assets.”

MORE EXPERIMENTATION

Zehnder says the company is using horizontal drilling technologies in the Woodford and Fayetteville trends, and is also experimenting with various technologies in the Woodford “to determine the effectiveness of our frac jobs and the contribution of each stage of the completions.”

Well costs in the Woodford are between \$4- and \$4.5 million.

Some 20 successful wells were drilled in the Arkoma Basin during fourth-quarter 2007, resulting in a 91% success rate. PetroQuest drilled six horizontal Woodford wells during the fourth quarter, four of which were operated. The average initial production rate for these four wells was 3.2 million cubic feet a day. After year-end, PetroQuest completed one additional operated well in the Woodford shale that is flowing at about 2.1 million a day after only a few weeks of production.

In the Fayetteville shale, PetroQuest participated in the drilling and completion of 12 successful horizontal wells by year-end 2007, the majority of which are in the early stages of production. Initial production rates have ranged from less than 1 million to more than 3 million cubic feet a day.

Drilling continues in the Arkoma Basin, with two operat-



PetroQuest Energy Inc., vice president, corporate development, Todd Zehnder

ed rigs drilling horizontal Woodford shale wells, as well as concurrent non-operated activity in the Woodford and Fayetteville shales. Plans call for adding a third operated rig in the Woodford shale within the next couple of months.

PetroQuest also participated in the drilling and completion of 10 wells in the East Texas Basin in the last quarter of 2007, the majority of which were in Carthage Field. In January 2008, the company completed the purchase of a private company’s interest in the East Texas Weekley prospect, targeting the Buda formation. As a result, PetroQuest will operate the prospect and holds about 85% working interest. The deal added about 2.4 Bcfe and a 50% working interest in about 16,000 gross acres, where the company estimates 10 to 15 additional drilling locations exist.

“In 2007, we doubled our reserves in the Arkoma Basin,” says PetroQuest chairman Charles Goodson, “and we are forecasting reserves will increase there at a much more significant rate during 2008.”

PetroQuest ended 2007 with about 157 Bcfe of proved oil and gas reserves, a new company record. About 91% of the proved reserves were natural gas and about 61% were in long-lived basins. Additionally, about 69% of the proved reserves were proved developed.

The shares trade on the New York Stock Exchange under the symbol PQ. Zehnder says PetroQuest’s shareholders have shown great support for the transition outside of the company’s traditional operating area and into unconventional plays.

“They have been very pleased with the results and growth that we have shown in our resource plays. During our last two capital offerings, investors have shown plenty of interest in the unconventional trends, and have been willing to invest in these plays. These trends allowed us to access the high-yield market in 2007, due to their longer reserve life and lower-risk profile,” he says.

The success and repeatability of these trends now position PetroQuest for significant growth in the future. •

Country Risk, Country Reward

International plays are luring more domestically headquartered E&Ps and their investors. Here are six case studies.

BY GARY CLOUSER, Contributing Editor

North American E&P companies and investors increasingly look to international plays to increase their returns and add spice to their portfolios. But, pursuing this type of investment theme requires a lot of due diligence. For most of these small- and mid-cap firms engaged in international E&P, it is important to know who makes up the management team—most have international experience with the majors.

“The major issue is risk versus reward,” says Toby Pierce, director of institutional research for the London office of Tristone Capital Ltd. “Most investors want at least two to three times the returns they seek in North America for the perceived risk of investing internationally.”

There has always been a small group of energy specialists that have invested in international E&P small caps; however, during the past two or three years, a much broader spectrum of investment firms have entered the space, he says.

“We are seeing an increasing interest in international firms as investors are looking to increase their returns. Some institutional investors are still reluctant to invest in the international space, mainly because it is different in many ways than Canada or the U.S., which they know very well,” Pierce says.

International projects are characterized by less competition and more opportunity. They are often focused on bigger, untapped or undeveloped reserves, he says.

Potential disadvantages, however, can be significant. International projects often take longer lead-times from initiating plans to production. Such projects often have to overcome a lack of sufficient infrastructure. The greatest risk, however, is geopolitical, which varies significantly depending on the relative political stability of the country in which a company is operating.

“Investors in international names need to focus on the fiscal, legal and political regimes to a higher degree, and for doing so, should expect higher returns and larger reserves,” Pierce says.

Frequently, a North-American company that focuses on an international play is headed by management that has unique knowledge and experience of a particular international location—often as a result of previous employment with an international major. Entrepreneurs also are eager to use advantaged technologies developed in North America to take a renewed look at potential or overlooked international reserves.

Sven Del Pozzo, senior research analyst for C.K. Cooper & Co., based in Irvine, California, says: “Reserve accumulations

are in relatively greater supply abroad than in North America, especially for oil. But reserves and reserve prospects are also controlled to an ever-greater degree by the countries that own title to the reserves. This is the natural result of the price-induced resurgence of resource nationalism. Higher prices can make the host country indifferent between developing the reserves or just standing by, as the value of undeveloped reserves in the ground appreciates.

“The key to success in this case is an international oil firm’s adaptability to what are typically chaotic circumstances. Today, oil companies need to keep their foot in the door and not burn any bridges with host governments. If a host government has a volatile political environment, that also means the government can change rapidly, offering new chances to ink profitable contracts.”

International firms often need to work with the host government to improve standards of living in the country just to gain entry into the game, Del Pozzo says.



Frank Ingriselli, Pacific Asia Petroleum Inc.

“They need to prove to the host government that they are efficient operators who are actually splitting the cost savings with the host country,” he says.

To illustrate the pros and cons of investing in internationally focused E&Ps, we highlight here six companies, headquartered in the U.S. or Canada, whose activity is predominantly or exclusively overseas.

PACIFIC ASIA PETROLEUM INC.

Founded by former Texaco international executives, Pacific Asia Petroleum Inc., based in Hartsdale, New York, recently announced deals that could make it the largest foreign company to develop China’s coalbed-methane and tight-gas sands properties.

In October 2007, the company’s wholly owned subsidiary, Pacific Asia Petroleum Ltd., agreed to a production-sharing contract (PSC) with China United Coalbed Methane Co. Ltd. (CUCBM), the Beijing-designated company holding exclusive rights to negotiate with foreign companies, for exploitation of CBM in the Zijinshan block, in Shanxi Province.

“This venture, together with other projects that our company is finalizing, has the potential to make Pacific Asia Petroleum Inc. one of the largest foreign holders of CBM and tight-gas sand properties in China,” says Frank Ingriselli, president and CEO.

Ingriselli is a former president of Texaco International Operations Inc. and president of Texaco Technology Ventures. He retired from Texaco in 2001 after it was acquired by Chevron.

The potential gross gas resource base under the contract, plus four additional resource blocks that Pacific Asia plans to acquire in the province, could exceed 14 trillion cubic feet (Tcf) of gas, says Ingriselli.

The Zijinshan PSC covers about 175,000 acres and is in the prospective Ordos Basin. The China Petroleum & Chemical Corp. says that basin is the second-largest petroleum-bearing basin in China.

CUCBM estimates the Zijinshan block has potential gas resources in excess of 3.8 Tcf. That block is near the major West-East gas pipeline, which links gas reserves in China’s western provinces to the markets of the Yangtze River Delta, including Shanghai. Immediately west of the Zijinshan block are discovered gas fields, that CUCBM estimates contain resources of about 50 Tcf.

The contract requires Pacific Asia to drill several exploration wells and pilot development wells during the next five years. CUCBM will have the right to acquire a 40% participating interest and work jointly to develop and produce CBM under the contract’s terms, which cover a 30-year relationship.

In September 2007, the company entered into four asset transfer agreements with ChevronTexaco China Energy Co.

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to buy participating interests in PSCs ChevronTexaco holds in respect to four CBM and tight-gas sand resource blocks in China's Shanxi Province. These cover about 1.5 million acres. Those transfers are maneuvering through the Chinese government's approval process.

Pacific Asia is the holding company resulting from the 2007 mergers of Inner Mongolia Production LLC headed by Ingriselli and Advanced Drilling Services LLC. They operate as company subsidiaries.

The company plans to drill more than 50 wells through 2009. It also plans to re-invest proceeds from successful ventures into new opportunities. Pacific Asia's stock is traded over-the-counter on the "pink sheets" under the symbol PFAP.PK, but it plans to move to the American Stock Exchange later in 2008. In addition to its corporate headquarters, Pacific Asia has offices in Cupertino, California, and Beijing.

HARVEST NATURAL RESOURCES INC.

Houston-based Harvest Natural Resources, through its subsidiary, Harvest Vinccler, has focused on Venezuela since 1992, but to diversify its holdings, it recently announced new ventures in Indonesia and Gabon.

Despite Venezuela's recent de-facto "nationalization" of foreign oil operations, Harvest's principal operations remain there but as a minority owner. In 2006, President Hugo Chavez decreed all operating service agreements would be converted to "mixed companies" in which the Venezuelan government would own a controlling interest.

Harvest had operated the South Monagas Unit (SMU) in Venezuela under the terms of an operating service agreement with government-owned oil company Petroleos de Venezuela S.A. (PDVSA). But, on March 31, 2006, Harvest Vinccler signed a memorandum of understanding to convert its contractual arrangement into a mixed company, which resulted in Harvest and Venezolana del Petroleo S.A. (CVP), an affiliate of PDVSA, forming Petrodelta S.A. CVP will own 60% and Harvest, through its 80% owned affiliate, will own 32%.

Harvest contributed its rights to three fields in SMU, and the Venezuelan government contributed three discovered fields to Petrodelta. Harvest says based on a third-party engineering report, Petrodelta will have almost 6 billion barrels of oil in place and proved reserves of 210 million barrels of oil equivalent (BOE).

"The creation of Petrodelta puts Harvest back to work increasing oil production in Venezuela," says James Edmiston, Harvest's president and CEO. "During 2007, focus was directed toward the completion of the conversion of our operating service agreement in Venezuela to the mixed company, Petrodelta, broadening our strategic approach to emphasize geopolitical diversification and laying the foundation for the future."

So what are the goals of Harvest working now with Venezuela's oil professionals? To rapidly increase production, increase proved reserves to more than 100 million BOE during the near-term by converting P2/P3 reserves and add additional reserves through exploratory drilling.



James Edmiston, Harvest Natural Resources

The SMU includes the Uracoa, Bombal and Tucupita fields. "The SMU fields were discovered between 1936 and 1962, and were developed and produced until 1987, when PDVSA allowed them to become dormant.

"When Harvest acquired the rights to the fields in 1992, the fields had produced 73 million barrels of oil and had remaining proved reserves of 18 million barrels. Beginning in 1992, Harvest drilled 181 wells, constructed facilities and produced 113 million barrels of oil and 64 billion cubic feet of natural gas through April 1, 2006," according to Harvest.

At April 2006, the SMU fields had remaining proved reserves of 105 million barrels of oil and 133 billion cubic feet of natural gas. Harvest's performance since 1992 in the SMU fields resulted in an improvement in ultimate recovery of 220%, or 200 million barrels of oil.

DIVERSIFICATION

As part of its diversification, Harvest acquired a 47% stake in a 1.35-million-acre PSC in West Sulawesi, Indonesia. It acquired that stake from Tately Budong-Budong NV, a subsidiary of Malaysia-based Pexco NV.

Tately plans to drill two exploration wells. Harvest expects the project to cost \$22 million, of which it will fund \$20.5 million.

The PSC has a 30-year term with an initial six-year exploration phase and an option for a four-year exploration extension. During the first-year phase, Harvest and Tately expect to acquire, process and interpret about 311 miles of 2-D seismic

Companies At A Glance

Company	Headquarters and Website Address	Location(s) of Principle Activity	What's New
Pacific Asia Petroleum Inc. PFAP.PK, but plans to be listed on AMEX later this year	Hartsdale, New York www.papetroleum.com	China	Has contract with Chinese government-designated company to develop coalbed methane and tight-gas sands
Harvest Natural Resources Inc. NYSE: HNR	Houston, Texas www.harvestnr.com	Venezuela , but seeks to diversify to Indonesia and offshore Gabon”	Required by Venezuelan government to transition from holder of Operating Service Agreement to a minority-owner in Petrodelta, in which Venezuelan government-owned company controls majority interest
TransGlobe Energy Corp. NASDAQ: TGA	Calgary, Canada www.trans-globe.com	Egypt and Yemen	Plans to sell Canadian reserves to focus on Middle East plays acquired through acquisition of GHP Exploration
BPZ Resources Inc. AMEX: BPZ	Houston, Texas www.bpzenergy.com	Peru and Ecuador	Plans to implement an integrated gas-to-power strategy to provide electricity in Peru. Project financed by International Finance Corp., an arm of the World Bank
Vaalco Energy Inc. NYSE: EGY	Houston, Texas www.vaalco.com	Gabon and Angola	In addition to continuing to develop Gabon and Angola assets, says its “tantalizingly close” to commercial success in North Sea
Trans-Orient Petroleum Ltd. OTC/BB: TOPLF	Vancouver, Canada www.transorient.com	Australasian region—especially New Zealand. Focused on 2.2 million acre onshore play in East Coast Basin—both conventional and unconventional resources.	Assembled management team. Reviewing opportunities in Papua New Guinea and Timor Sea

and drill two exploration wells. If and when a commercial discovery is made, Harvest will operate the block.

In January 2007, Harvest acquired a 50% operated interest in the 0.7-million acre Dussafu Marin E&P-sharing contract offshore Gabon from Sasol Petroleum West Africa Ltd. Harvest plans to acquire and process about 311 miles of 2-D seismic and potentially drill wells based on its interpretation of the seismic. Harvest is the operator of the block.

“The high-impact exploration opportunities in the pro-

duction-sharing contract in Indonesia and our recent entry into offshore Gabon, through the agreement to acquire a 50% operated interest in the Dussafu Marin PSC, are ideal complements to our lower-risk Venezuelan development opportunities.

“We expect to acquire several additional undeveloped or undeveloped blocks over the next few years,” says Edmiston.

Edmiston joined Harvest in 2004 after more than two decades of holding various international positions in senior



Ross Clarkson, TransGlobe Energy Corp.

management with Conoco, later ConocoPhillips, including stints in Venezuela, Dubai and Russia, among other locations. Since 1996, Harvest has held interests in the South China Sea. That year it acquired an entity, whose principal asset was a contract with government-owned China National Oil Corp. for an area covering 6.2 million acres in the South China Sea. However, an ongoing border dispute between China and Vietnam over that area has prevented Harvest from enacting its exploration plans.

During 2006, Harvest opened a technical office in London to provide engineering and subsurface technical support on a global basis. It also acquired a minority interest in Fusion Geophysical LLC. Fusion, with offices in The Woodlands, Texas; Norman, Oklahoma; Boulder, Colorado; and Tripoli, Libya, is a leading global provider of geoscience and geophysical services.

Harvest is traded on the New York Stock Exchange under the symbol HNR.

TRANSGLOBE ENERGY CORP.

Calgary-based TransGlobe Energy Corp. plans during the first half of 2008 to divest its Canadian assets so it can focus on its recently acquired assets in Egypt. The company opened the year by announcing its acquisition of privately held GHP Exploration for \$40.2 million.

GHP held a 30% working interest in eight development leases and associated infrastructure in Egypt, comprising the West Gharib production-sharing concession. The

acquisition of GHP adds 900 barrels a day to TransGlobe production; 1.7 million barrels of proved reserves and 3 million barrels proved plus probable reserves. Dublin International Petroleum (Egypt), a wholly owned subsidiary of TransGlobe, operates the West Gharib Concession Agreement. The leases encompass about 44,059 acres and are valid for 20 years.

Current gross oil production from the eight development leases is about 3,000 BOE per day. GHP's working interest share of production is approximately 900 barrels per day (about 450 net after the production-sharing split with the government of Egypt).

There are eight oil fields on the lands that are producing from 25 wells.

"This acquisition further strengthens our position in the Arab Republic of Egypt. It provides TransGlobe Energy with enhanced drilling opportunities, increased reserves and a robust production profile," says Ross Clarkson, president and CEO. "It allows us to leverage our existing experience and operational success in Egypt and throughout the Middle East."

The acquisition would raise the company's debt to about US\$98 million, which would be partially offset by the sale of its Canadian assets.

"While our Canadian properties have served us well in the past, the many opportunities on our Egyptian and Yemen properties demand even greater attention," says Clarkson. "We plan to use the proceeds from this sale to maintain our strong balance sheet and to further grow our opportunities in the Middle East."

Canadian production accounts for 1,500 BOE per day of the company-wide 8,500 BOE per day. The bulk of the company's production, some 7,000 BOE per day, comes from Yemen and Egypt, including production from the GHP acquisition.

The company projects its total production will be 10,000 BOE per day by 2010. To achieve that, the company is ramping up its spending and projects a 2008 capex of \$55 million to \$60 million, about a 40% increase from 2007.

TransGlobe holds interests in more than 1.34 million gross acres (368,000 net) in Yemen and 5.5 million acres (2.7 million net) in Egypt.

TransGlobe has numerous executives who gained extensive knowledge and experience in those areas through previous employment. Clarkson is the former resident manager of Petro-Canada (Yemen). TransGlobe's vice president and COO, Lloyd Herrick, also has extensive experience in the Middle East as does his exploration team.

TransGlobe also began trading January 18 on Nasdaq's Global Select Market as TGA.

BPZ RESOURCES INC.

Peru and Ecuador are the focus of BPZ Resources Inc., a Houston company whose goal is to provide the latest proven technology to integrated energy projects in Latin America. The company's president and CEO is Manolo Zuniga, a native of Peru, who grew up in its oilfields. His

father, Dr. Fernando Zuniga y Rivero, is the company's chairman, who, after a stint with Exxon's Peru subsidiary, joined Petroperu (the state petroleum company) and rose to chairman. He also served on the energy group of The World Bank.

Manolo Zuniga says BPZ established a presence in Peru because it believes the country is highly attractive and under-explored, especially for gas, both onshore and offshore, despite Peru's history of more than a century of petroleum activity. Many reserves there have been under-utilized, Zuniga says.

Initially, BPZ is developing its offshore Corvina oil discovery in northwest Peru. It is also redeveloping its Albacora oil field in conjunction with an integrated gas-to-power strategy, which includes generation and sale of electric power in Peru as well as sales of gas and power to local industry.

The International Finance Corp., an arm of The World Bank, would fund the gas-to-power project. BPZ has four wells drilled in the offshore block, with three of them testing a cumulative 8,300 barrels of oil and 184 million cubic feet per day. The fourth well is being tested.

BPZ has exclusive license contracts for E&P covering about 2.4 million acres. It has drilled four wells in Corvina Field. With completion of the third well, BPZ already had met two criteria of IFC: three wells, each capable of delivering at least 20 million cubic feet per day; and at least 200 billion cubic feet of proved gas in place. A company goal for 2008 is to ramp up production to about 8,000 barrels of oil per day.

"The offshore location is near the equator, so the waters are calm and there are no hurricanes to be concerned about. In other words, while we do operate offshore, the conditions are relatively benign as compared to other offshore locations around the world," says Manolo Zuniga.

BPZ also has a participating interest in a block of nearly 300,000 acres in southwest Ecuador.

Although the company was founded in 2001, its predecessor, BPZ & Associates, was previously active for more than a dozen years in international consulting and energy project development.

The company began trading on the American Stock Exchange in January 2007 under the ticker symbol BPZ. In addition to its corporate headquarters, BPZ has offices in Lima, Peru, and Quito, Ecuador.

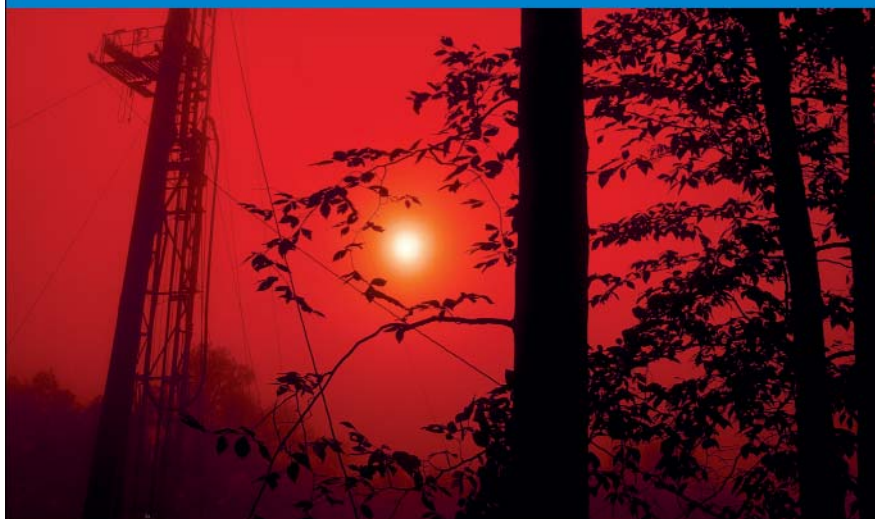
VAALCO ENERGY

Houston-based Vaalco Energy focuses primarily in Gabon and Angola, offshore West Africa. It found its treasure on the Atlantic Coast in Gabon, where it not only is building on that find, but it says it is "tantalizingly close" to success in the North Sea.

During the past seven years, Vaalco's revenues have increased more than 75-fold, with profits up accordingly. The company posted losses in 2000 and 2001 prior to coming on production in 2002 offshore Gabon. By 2006, it was No. 1 on *BusinessWeek's* Hot Growth list.



RANGE RESOURCES



Unconventional Thinking

Our use of cutting-edge technology makes us one of the nation's leading independent producers of unconventional natural gas. Range's team of technical experts has tripled production from the Fort Worth Basin Barnett Shale this year, while we are pioneering exploration efforts in the Appalachian Basin Marcellus Shale play. Currently, we have a stake in five separate shale plays covering more than 1 million net acres, own significant leasehold in one of the nation's premier coal bed methane fields in Virginia, and drill hundreds of tight gas sand wells each year. To learn more about Range, please visit our web site at www.rangeresources.com.

Range Resources Corporation

100 Throckmorton St., Suite 1200
Fort Worth, TX 76102
Phone: 817-870-2601

That's quite a turnaround from the beginning of the decade, as it struggled to survive the late 1990s when energy prices plummeted, as did production from its wells in the Phillipines.

The success is credited to Gabon. In 1998, Vaalco drilled a test well about 25 miles from the coast of Gabon. That well, in about 270 feet of water, resulted in the discovery of reserves estimated at 55 million barrels, of which Vaalco owns 28%.

That discovery, named Etame Field, now produces about 22,000 barrels a day. Vaalco plans to ramp up production to about 25,000 barrels a day by the fourth quarter 2008. Gabon accounts for essentially all of Vaalco's total revenues, says W. Russell Scheirman, president and chief financial officer.

Vaalco is evaluating seven exploration and development areas for potential drilling in the Etame concession. It expects to begin that drilling program in the fourth quarter and estimates there are 100 million barrels gross unrisks recoverable oil reserves there. Vaalco has a 35% interest in the exploration acreage on the 750,000-acre Etame block, says Scheirman.

Vaalco also has 40% interest in 1.4 million acres offshore Angola. Exploration drilling should begin on the block in 2009.

In January 2008, Vaalco said it had ceased operations at a well in the U.K. North Sea because its reserves turned out to be smaller than anticipated. The company has a 25% interest in that well, which Bow Valley Petroleum (U.K.) operates.

"While we will suspend the well, we will leave infrastructure in place on the sea floor to allow for easy entry in the future when development is warranted," say Robert Gerry III, company CEO.

Even after conceding the oil column did not contain enough hydrocarbons to be a commercial success, Vaalco isn't quitting on the North Sea. Soon after it announced its suspension of the North Sea well, the company said it is negotiating to participate in another exploration well in the Southern Gas Basin. Vaalco estimates there are 45 billion cubic feet of gross reserves in the well and said it will pay a portion of costs to obtain a 25% working interest, with drilling expected to start in the third quarter 2008.

Vaalco's proved reserves are 6 million barrels and its average daily production rate is 5,200 barrels of oil net to the company. The 2008 capex is estimated at \$44.4 million, says Scheirman.

The company's senior management is well-known in the oil patch and on Wall Street. Gerry, who started his career as a stockbroker, has served as Vaalco's chairman and CEO since 1997. Prior to that he was vice-chairman of Nuevo Energy Co. and earlier was senior vice president of Energy Assets International Corp. Scheirman joined the company in 1991 after having been with McKinsey & Co. and earlier serving as a petroleum reservoir engineer for Exxon Co. Vaalco trades on the New York Stock Exchange under the symbol EGY.



Manolo Zuniga, BPZ Resources Inc.

TRANS-ORIENT PETROLEUM

Trans-Orient Petroleum Ltd. is a Vancouver-based corporation acquiring and exploring for oil and gas in the Australasian region, particularly New Zealand. The company also is reviewing opportunities in Papua New Guinea and the Timor Sea region, areas where the company's senior management has extensive experience.

Trans-Orient's core project is a 100% interest in about 2.2 million onshore acres in the lightly explored East Coast Basin of New Zealand.

"This interest represents a world-class resource opportunity, which also carries all the advantages of being a first-mover in the region. Trans-Orient's acreage has a considerable number of identified prospects and leads, many drillable at relatively reasonable costs, enabling the company to explore high-upside potential with limited financial risk," says chairman Dr. David Bennett.

These include Trans-Orient's unconventional (shale) opportunity, which is aimed at tapping the potentially vast oil and gas resources locked in the Waipawa-Whangai fractured shales, which are both source rock and potential reservoir sequences.

Recent completion technologies and success in comparable fractured shale formations in the U.S. suggest extraction and recovery of this significant resource may lay within reach, Bennett says. The acreage contains several exploration play types with significant undiscovered resource potential, including an unconventional opportunity targeting the fractured oil and gas shale, which

is widespread and thickly developed across the acreage.

In addition, through its approximate 10% ownership of Austral Pacific Energy Ltd., Trans-Orient has indirect interest in several oil and gas discoveries of which the Cheal oil field in New Zealand is in commercial production, while three others are undergoing commercial feasibility studies.


In October 2007, Bennett was named executive chairman. In an open letter to shareholders, he wrote, in part: "Attractive projects in the oil business are becoming even harder to identify. Competition is intense, particularly from the emerging national oil companies. However, we have the ability to secure projects."

"For Trans-Orient, new technology has also manifested into opportunity. The most significant element of our strategy was put in place with the acquisition of our 100%-controlled Waipawa-Whangai fractured shale play on the East Coast of New Zealand. This project, along with more conventional exploration opportunities in the acreage, provides upside not typically found in a small independent."


Bennett leads a team that has extensive experience and success in the region. He is one of the cofounders of Austral Pacific Energy Ltd. and served as its CEO from 1997 to 2005. During that time, the company acquired and operated an exploration portfolio in the Timor Sea, New Zealand and Papua New Guinea.



Dr. David Bennett, Trans-Orient Petroleum



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Alex Guidi serves as a director of Trans-Orient, but is chairman and CEO of International Resource Management Corp. (Iremco), a private, Vancouver-based investment company. During the past three decades, he has founded a number of oil and gas companies focused on Western Canada and Australasia. In New Zealand, Guidi is a cofounder of Austral Pacific Energy Ltd. and is the founder of TAG Oil Ltd. and Trans-Orient Petroleum Ltd.

Peter Loretto serves as CEO and director. He has more than 20 years of investment banking, business and public company experience. He also is COO of Iremco. In January 2008, Garth Johnson, who has been an executive in activities in the New Zealand and Papua New Guinea region for the past dozen years, was named president of Trans-Orient. Johnson also was recently appointed CEO of TAG Oil.

Summarizing Trans-Orient's recent activities, Loretto says: "Since re-establishing direct operations in 2006, Trans-Orient has built a strong leadership team, completed financings with some of the world's most influential international resource investors and has won 100% control of a multi-million acre onshore frontier with world-class resource potential."

Trans-Orient is acquiring seismic on its acreage, with the intention of initiating a multi-well drilling program, beginning with two wells, which will test conventional and unconventional targets.

The company's shares trade on the over-the-counter bulletin board under the ticker symbol TOPLF. •

Ram Energy Doubles Size

With a transformative acquisition, Tulsa's Ram Energy Resources takes its growth strategy by the horns.

BY VICKIE DAWKINS-KERSEY, Contributing Editor

The pleasures of investing in small- and mid-cap companies include reaping the benefits of the rapid growth they can achieve, if they make the right asset acquisitions or mergers, and have the capital to maximize production on the new properties in the fold.

Twenty years ago, Larry Lee and his partner had some pretty big ideas for their independent oil and gas company, Ram Energy Resources Inc., based in Tulsa, Oklahoma. Now, following the largest single transaction in its history, and what chief executive Lee describes as a “transforming” acquisition in late 2007, Ram is literally twice the company it was at one time.

The November 2007, \$286-million acquisition of Ascent Energy in Plano, Texas, doubled the size of Ram’s proved reserves, raising them to 38 million barrels of oil equivalent and raising daily production to 7,000 BOE. Longer term, the deal enhances the diversification of the company’s asset base and expands its footprint as a shale player.

Ram Energy’s conventional asset portfolio includes properties in north and south Texas, Oklahoma and Louisiana with exploitation opportunities in shale plays in West Virginia and North Texas, and exploratory drilling in north and west Texas as well as Louisiana.

Since 1987, Ram Energy has kept an eye on its balanced strategy for growth through a combination of acquisition, exploitation and exploration. As a result, the company has drilled or participated in the drilling of more than 640 oil and natural gas wells in its 20-year history, of which 92% were successfully completed and produced hydrocarbons in commercial quantities.

The firm became a publicly traded company in 2006 (Nasdaq: RAME).

DEAL METRICS

The \$286-million acquisition of Ascent Energy included \$190 million cash, 18.8 million shares of Ram common stock and 6.2 million Ram warrants. Seventy-four Ascent employees joined Ram but will remain in the Plano office.

Ram completed an agreement with its lenders to expand its credit facility to a \$500-million, senior secured credit facility with an initial borrowing base of \$375 million.

“The acquisition of Ascent takes us to the next level size-wise, which will improve and increase our equity market capitalization,” says Lee. “With our liquidity and combined operations, we believe that we can accelerate drilling on the assets we’ve acquired and ramp up the pace of development on our existing assets. We’ll also be looking at exploring synergies where our recently acquired assets buttress our existing ones.”



Larry Lee,
Ram Energy
Resources

Lee believes the company’s growth strategy is taking Ram Energy where he envisioned. With an unprecedented capital expenditure budget of \$80 million set for 2008—more than three times its 2007 budget—Ram is focused on building shareholder value and plans to drill about 80 wells this year.

“The size and scope of our budget will allow us to increase production over the near term from conventional drilling in our existing assets, as well as allow us to exploit our newer assets in conventional and non-conventional shale plays,” Lee says. “We’re truly excited about what we see in our future.”

Ram Energy believes it will continue to build shareholder value primarily through the drillbit and “tuck-in” acquisitions, along with a stable cash flow base. Lee thinks the company has compelling valuation versus its peers, a balanced oil and natural gas exposure, a large inventory of growth opportunities and a high degree of operating control. •

Analysts’ Take

Neal Dingman, E&P research analyst with Dahlman Rose & Co. of Houston, notes that on May 12, 2008, the company’s warrants expire, which could generate \$94 million to the company if exercised.

“We believe this will increase the trading (and price) of the stock and strengthen the balance sheet further,” he says.

Dingman also likes the company’s production potential.

“The West Virginia (Devonian shale) play is near a successful operator and has significant activity planned for 2008. Ram intends to drill 14 wells in the area during the year in order to both boost production and increase reserves. There could be a boost in upcoming reserves, as Ram does not get credit for step-out locations on the play,” he says.

Dingman has a Buy rating and a price target of \$7.50, using an 8.8x multiple.

Based on Ram’s legacy assets in north Texas, in the Electra/Burkburnett area and the Barnett shale, as well as the PUDs acquired in the Ascent deal, analyst Mark Lear of Sidoti & Co. has a price target of \$8. •

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fully secure funding for an E&P start-up, and at reasonable terms based on a specific business model.

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- Public Capital: Exit Or IPO?

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Oil and Gas Investor's Energy Investment Symposium

Investments in the energy industry remain boundless, and 2008 public-equity and debt-market resetting have resulted in even greater buying opportunities in the sector. On this day, E&P, oilfield-service, mid-stream, downstream, and alternative-energy executives will present their companies' market opportunities and strategies.

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M&A

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