MONEY REDEFINED
CAPITAL FORMATION 2016

JUNE 2016

Oil and Gas Investor

HARTENERGY

A SUPPLEMENT TO

Oil and Gas Investor

1616 S. Voss, Suite 1000
Houston, Texas 77057-2627
713-260-6400
Fax: 713-840-8585
www.oilandgasinvestor.com

MONEY REDEFINED
CAPITAL FORMATION 2016

UNWIND, REWIND

The greatest buildup of oil and gas acreage and production—and debt—in U.S. energy history has been undergoing a correction for more than 18 months. It has been characterized by rigorous yet rueful analysis, soul-searching and action. Companies and investors are busy unwinding the complexities of burdened balance sheets, rerouting the strategic direction and trying to renew the portfolio.

Their goal now is not necessarily production growth as before, but instead, to delever, find a way to drill on, and deliver a meaningful return.

Observers from every corner say energy capital markets will never be the same after this dramatic downturn—until, of course, they are. A repeat of this scenario is probably inevitable during the next boom, whenever that occurs, given the normally unbridled enthusiasm that oilmen and Wall Street display about putting a drilling rig to work. But it is astonishing, and unfortunate, to learn of E&P companies burdened by as much as $1 billion, $2 billion or $3 billion of unsecured debt.

You can't always drill your way out of that situation, even with higher oil prices.

It would be too easy to second-guess the business model now. Meanwhile, before companies can turn their gaze to the future, a reckoning is underway. Whether large or small, public or private, they are repairing their balance sheets this year, focusing on dollars in versus dollars out. They must analyze their capital structure and tweak their criteria for decisions on spending.

There's little doubt that going forward, oil and gas executives will be more studious and cautious when juggling assets and liabilities. That's the good news.

For now, access to debt capital has grown more expensive and difficult, especially for high-yield bonds. A ratio of anything beyond 3.5 times debt to EBITDA will draw scrutiny. On the other hand, private equity's war chest is still large by historical standards. Those who hold the purse strings are quietly fixing their portfolio companies that are in trouble and gearing up for more deal-making.

I believe we will soon see the light at the end of the tunnel, and we're starting the inevitable climb out of the hole, although the timing of a recovery in oilfield activity and capital raising is a huge question mark. One CEO we know, the ultimate serial entrepreneur, saw his public company exit bankruptcy, but he announced the formation of his new private company a day later, funded by friends and family.

Dozens of experienced geologists and engineers who have left beleaguered employers after 20 or 30 years of hitting it hard every day are now the target of private equity, which always shifts into high gear during a low cycle. People who have been through the troughs before claim that they have never seen such an opportune time to start an E&P company or fund a new one.

The noted founder of eight energy companies over his career, capital provider Thomas J. Edelman, managing partner of White Deer Energy, said it best at a recent IPAA conference in Houston: "We did not invest over the past 2½ years … but this is really the time to position yourself for the upturn."

That hope and optimism, and love for the oil and gas industry, will carry many to new heights in the next five years.

—***Leslie Haines***, *Executive Editor-at-Large*

For more information on energy financing trends and capital providers, see these articles and more in the archives of Oil and Gas Investor *at* **OilandGasInvestor.com**:

"Monetizing Midstream," On how E&Ps can capture value, Nov. 2015

"Financial Survival Tactics," On second lien notes, exchange offers and more, Dec. 2015

"Private Equity in Bite-size Pieces," Profiles of Pearl Energy Investments, Bayou City Energy Management and Talara Capital Management, Jan. 2016

"Angst Ahead for Borrowers," The outlook of commercial banks and redeterminations, Mar. 2016

"The Capital Search," Six financiers at IHS CERAWeek discuss the finance future, Apr. 2016

"Debt in the Downturn," Three lenders discuss financing structures, May 2016

CAPITAL NEWS

In Case You Missed It

PEOPLE NEWS

Zach Jordan, former managing director at Citigroup Inc.'s global energy group, joined **Barclays Plc** as a managing director in its natural resources group, based in Houston.

Natural Gas Partners, Irving, Texas, hired Patrick McWilliams as managing director in its Houston office. Previously, McWilliams was a managing director at JP Morgan Chase's Houston office.

Dan Ward joined **Evercore Partners** as senior managing director in its energy corporate advisory practice in New York. Ward previously worked in the natural resources group at Deutsche Bank Securities.

Guggenheim Securities hired James Schaefer as senior managing director covering the energy, power and technology sector of the investment bank. In the last year, Guggenheim has hired several senior executives in its energy banking division, including Daniel More, senior advisor; Marc Bentley, senior managing director; Dean Keller, senior managing director; David Dolezal, senior managing director; Kyle Jones Baker, managing director; and Allan Otto, managing director. Guggenheim is based in New York and Chicago.

John Stude joined **Citadel Advisory Group LLC** investment banking firm as vice president of business development. The Fort Collins, Colo.-based firm handles energy services and related industries.

Paul Steen and Douglas Vaccari were both promoted to vice president at **First Reserve Corp.** after joining the firm in 2011. First Reserve is headquartered in Greenwich, Conn.

Stephens Inc., based in Little Rock, Ark., hired Charles Lapeyre as managing director and head of its upstream acquisitions & divestitures group. Previously, Lapeyre worked at Virage Energy Group LLC, an advisory firm he founded in 2012.

Pine Brook, New York, promoted Annie Sloyer to CFO and Claire Harvey to principal on the energy investment team. Sloyer was controller at Pine Brook since 2010, and before then, a fund controller with Olympus Capital Holdings Asia for three years. Harvey, based in the Houston office, joined the firm's energy investment team two years ago, and she is now director of Red Bluff Resources, one of the firm's portfolio companies.

Credit Suisse hired James Peterkin to head its oil and gas team in Europe, the Middle East and Africa (EMEA). Peterkin, who is now based in London, was previously co-head of EMEA oil and gas investment banking at Britain's Barclays for nine years.

PROVIDER NEWS

Och-Ziff Capital Management, based in New York, opened a Houston office. Johnathan Linkler, previous managing director with First Reserve Corp., joined the firm as senior advisor and works in the Houston office.

CohnReznick Capital Markets Securities LLC, New York, expanded its investment banking services to the oil and gas sector. Two new executives, Sam Xu and Evan Turner, have been hired. Xu joined from KLR Group.

Two former **Barclays'** Americas division executives, Hugh "Skip" McGee III and Christopher Winchenbaugh, founded **Intrepid Financial Partners**, which has offices in Houston and New York.

FBR & Co., Arlington, Va., acquired **MLV & Co. LLC**. Allen Morton is senior managing director, head of energy and natural resources group at FBR & Co.

EIV Capital LLC formed **CAM Integrated Solutions**, a new engineering, procurement and construction management company. Its founders are Craig Pierotti, CEO and former executive vice president for CH2M's oil, gas and chemicals; and Mitch Stamper, former facilities engineering manager for East Texas and North Louisiana at Anadarko Petroleum Corp. Both companies are based in Houston.

Blue Wolf Capital Partners LLC's affiliate, **Blue Wolf Capital Fund III LLP**, partnered with **K2 Energy Capital LLC**, Dallas, to handle energy services investments. Both Blue Wolf companies are based in Brooklyn. Kevin W. Kuykendall is the founder and was previously a managing director at American Capital Ltd.

Pearl Energy Investments, Dallas, held the final closing of **Pearl Energy Investments LP** with $500 million in total commitments. Billy Quinn is founder and managing partner. Before founding Pearl, Quinn was managing partner of **Natural Gas Partners**, Irving, Texas.

Ridgemont Equity Partners, based in Charlotte, N.C., closed on a $995 million fund at the hard cap. It will support buyout and growth capital investments of $25 million to $100 million in industries including the energy sector. **Brooklands Capital Strategies**, San Francisco, was the strategic fundraising advisor.

PRIVATE EQUITY DEPLOYED

EnCap Flatrock Midstream, San Antonio, made an initial equity commitment of $350 million to **Lucid Energy Group II LLC**, a full-service midstream provider headquartered in Dallas. Mike Latchem is Lucid's president and CEO.

Amistad Energy Partners LLC, a new E&P company focused on North American A&D and based in Katy, Texas, received $150 million in equity from **Kayne Anderson Energy Funds**, Houston. Management is led by Bryant Chapman, president and CEO; Paul Bradley, senior vice president and CFO; Roger Reddin, senior vice president of production; and Chris Harder, senior vice president of drilling and completion.

Pine Brook, New York, announced a $300 million line of equity investment in **Red Bluff Resources Holdings LLC**, a new energy company with a focus on acquiring, exploring and developing onshore oil and natural gas in the Midcontinent and Permian. Red Bluff is headquartered in Oklahoma City and led by CEO Timothy Haddican, former vice president of operations and engineering with **RKI Exploration & Production LLC**.

Balidor Oil & Gas LLC received an equity commitment of $150 million from **Kayne Anderson Energy Funds**. Both companies are based in Houston. The management team of Balidor is led by Dave Baker, CEO; Brian Dorr, COO; and Steve Liles, vice president.

PCORE Exploration & Production II LLC, Dallas, raised $200 million of equity commitments from **Natural Gas Partner**'s NGP Natural Resources XI LP fund and through the management team based in Irving, Texas. PCORE II's leadership includes Mark Hiduke, managing director; Colin O'Farrell, managing director and executive vice president, geoscience; and Billy Hannes, general counsel and vice president, land, all of whom led PCORE I.

Fortuna Resources Holdings LLC, Houston, received a $75 million investment from certain **Och-Ziff Capital Management Group LLC**, New York, affiliates. Fortuna will use the investment to pursue activities in the West Texas Permian Basin.

Invictus Energy LLC received a $150 commitment from **Kayne Anderson Energy Funds**. Both companies are based in Houston. The Invictus management team is headed by Kevin Green, president and CEO; Elliott Hough, COO; Robert Estrada, CFO; and John Moreland, vice president of land.

Quantum Energy Partners, Houston, formed **Sentinel Peak Resources LLC** with former **Berry Petroleum Co.**, Denver, executives, headed by Michael Duginski and George Ciotti. Quantum and management team members collectively made capital commitments of more than $300 million to the company. Based in Denver, Sentinel focuses on heavy oil development in California. Duginski is president and Ciotti is CEO.

Lola Energy, Pittsburgh, closed on a $250 million equity commitment from **Denham Capital**, Houston. The funding will be used to pursue leasing, acquisition, exploration and development activity in the Marcellus and Utica. Jim Crockard, formerly senior vice president of business development and land at **EQT Corp.**, Pittsburgh, is CEO.

Phoenix Natural Resources LLC received a $250 million equity commitment from **Kayne Anderson Energy Funds**. Both companies are headquartered in Houston. The Phoenix management team includes Russel Parker, CEO; Jim Mooney, CFO; Ray Ambrose, SVP of engineering; Chad England, SVP of operations; and Mark Hargis, SVP of geology.

Black Mountain Oil and Gas LLC, Fort Worth, received an equity commitment of $150 million from **Natural Gas Partners**, Irving, Texas, with whom it formed a partnership. NGP's Natural Resources XI LP private-equity fund was behind the deal. Rhett Bennett is founder and CEO of Black Mountain.

EdgeMarc Energy Holdings LLC, Canonsburg, Pa., closed an incremental equity commitment of $300 million. Existing investors, including funds managed by the merchant banking division of **Goldman Sachs**, New York, were joined by new investor **Ontario Teachers' Pension Plan**, through its private capital group.

Southcross Energy Partners LP and **Southcross Holdings LP**, both based in Dallas, received a $175 equity commitment from **Charlesbank Partners**, Boston; **EIG Global Energy Partners**, Washington D.C. and **Tailwater Capital**, Dallas. Some $50 million will support Southcross's opportunities in the Eagle Ford Shale, including acquisitions. It will also support asset dropdowns from Holdings, and the remaining $125 million will support Holdings' inventory of Eagle Ford midstream dropdown assets.

Monadnock Resources LLC, Dallas, received $100 million in equity from **Kayne Anderson Energy Funds**, Houston, and its management team. Monadnock is led by Matt Gentry, president and CEO; Adam Howard, vice president of engineering; David Williamson, vice president of geoscience; and Kelli Roach, vice president and general counsel. ■

AS THE GOING GETS TOUGH, WHO'S TOUGH ENOUGH?

Private equity firms discuss the current investment environment.

By Nissa Darbonne

In times like these, upstream private equity providers are getting a relatively rare downcycle view of their portfolio-company management teams, according to Ken Friedman, a managing director of SFC Energy Partners.

It's a time when those team members "really want to go through this cycle and do the things that are necessary to live to fight another day," he said in a round-table discussion at *Oil and Gas Investor*'s annual Energy Capital Conference recently. Portfolio companies have to look at every cost that doesn't fit a "conservation mode" and which plays "are really worth hanging onto," he said. "It's a sobering experience," but "a necessary one."

EnCap Investments LP is deploying its upstream $6.5-billion Fund X currently. Doug Swanson, a managing partner, said that among EnCap's roughly 35 upstream investments across North America at present, it too is focusing on balance sheets, risks and other economic measures.

"What we're not doing is picking drilling locations," he added. But, regarding investment decisions, "at the end of the day, it comes down to what are the single-well economics. If we don't have to drill wells, let's not drill wells."

Through its portfolio companies, EnCap's invested in all of the major unconventional resource plays. SFC has less exposure to these as its equity commitments are smaller, Friedman said. A $40-million investment, for example, is better suited to existing field development, such as a waterflood, infill drilling and extensions that may require $2-million wells, rather than $6-million wells, he said.

SOME RECENT UPSTREAM PRIVATE CAPITAL DEALS (FUNDED SINCE JUNE 2015)

Company	Amount ($MM)	Private Equity Source
Luxe Energy	$500	Natural Gas Partners Fund XI
Red Bluff Resources Holdings	$300	Pine Brook
Sentinel Peak Resources	$300	Quantum Energy Partners
Ameredev	$250	EnCap Investments LP
Lola Energy	$250	Denham Capital Management
TRP Energy	$250	Trilantic Capital Management
Element Petroleum III	$200	ArcLight Energy Partners Fund VI
PCORE Exploration & Production II	$200	NGP Fund XI
Amistad Energy Partners	$150	Kayne Anderson Energy Funds
Balidor Oil & Gas	$150	Kayne Anderson Energy Funds
Invictus Energy	$150	Kayne Anderson Energy Funds
Carrier Energy Partners II	$100	Riverstone Global Energy
Lonestar Resources	$100	IOG Capital
Monadnock Resources	$100	Kayne Anderson Energy Funds
Triumph Energy Partners	$100	Kayne Anderson Energy Partners
Resource Energy Partners	Undisclosed	Apollo Global Management

Source: Oil and Gas Investor, *company reports*

Throughout the downturn, private equity players have continued to fund new teams, most with the goal of acquiring and exploiting, rather than leasing, oil and gas assets. Each new company represents a potential business partner; each team contributed some of its own equity.

"What we don't want in this environment is to step into a new play with a gun to our head (in terms of new-play lease deadlines)," he said. "That's absolutely a non-starter for us." But, he added, "We're still leveraging a lot of the technology that has come out of the horizontal shale plays."

In terms of acquisitions, one involved a waterflood project in Canada from ExxonMobil Corp.—but from the time the deal commenced to closing, the price of WTI declined 30%. "Exxon is a company that doesn't really like to change its terms," he said, "so we had little SFC facing Exxon on the other side of the table."

The deal almost didn't work, but it didn't blow up. In the end, "the two parties were willing to accept the pain and be equally dissatisfied," he said.

Private equity executives (from left) Doug Swanson, EnCap Investments; Ken Friedman, SFC Energy Partners; and William McMullen, Bayou City Energy, discussed the current investment environment, deal making and management at the recent Energy Capital Conference in Austin, Texas.

Bayou City Energy Management LLC makes PE investments of between $5- and $35 million, putting it at the smaller end of the market. Bill McMullen, founder and managing partner, said, "We're going into areas of the world, specifically the U.S., where plays and basins are geologically derisked. We're not afraid of unconventional assets," but "where we really butter our bread is going after an asset where we can take LOEs [lease operating expenses] of $20 a barrel down to $10."

Holding for longer

The smaller market, from an equity perspective, "is very undercapitalized," he said. Bayou City has made two investments since its June 2015 formation: TXon-SCZ LLC in and around the KMA Field in Wichita County, Texas, and White Knight Resources LLC in the San Joaquin Basin, California.

It also aims to invest as a drilling partner. Its one deal to date is with Alta Mesa Holdings LP to drill legacy acreage that is in the Stack play in Oklahoma. "We want to put as many dollars as we can into the ground" rather than fund G&A, such as in traditional private equity, he said.

Swanson said it is clear that, although EnCap successfully exited portfolio company Felix Energy Holdings LLC to Devon Energy Corp. earlier this year, "there is no question you're going to have to hold these assets longer."

EnCap might have one exit toward the end of 2016, "if there is a price recovery." Otherwise, "we have to have capital structures in place where you can be patient."

SFC's Friedman expects more transactions eventually. Public E&Ps will need to find drilling inventory that generates positive returns, if a $40 to $50 oil price persists—whether in shale or conventional rock. "It's really about the ability to do something on a low-risk basis and do it repeatably," he said.

McMullen said that, with Bayou City at the smaller end of the market, "We're bumping up against guys who are having issues with their credit facilities." He was waiting in March for capitulations as a result of new borrowing-base determinations.

In addition, the Office of the Comptroller of the Currency issued new, stricter guidelines to banks in late March, regarding lending on proved reserves. "The new OCC standards, I think that is going to force some transactions … to actually break free," McMullen said.

Friedman noted that Harold Hamm, chairman and CEO of Continental Resources Inc., remarked at the conference earlier in the day, while accepting *Oil and Gas Investor*'s Executive of the Year award, that great innovation has come during downcycles. For example, Hamm said, the fracture-stimulated, horizontal discovery of the Middle Bakken shale member in Elm Coulee Field in Montana occurred in 2000.

Friedman said, "As Harold pointed out, often what you find on the other side of these downturns is some of the best opportunity." ■

THE DRILLCO

Potential industry partners may be struggling to invest in their own drilling inventory, but capital providers see an opportunity to own direct interest in new wells.

By Nissa Darbonne

Skipping the overhead of funding management teams, several new E&P capital providers are increasingly joining producers directly to fund drilling. "We want to put as many dollars as we can into the ground," Will McMullen, founder and managing partner of Bayou City Energy Management LLC, said at *Oil and Gas Investor*'s annual Energy Capital Conference recently.

IOG Capital LP also is doing this. It was founded in September 2014 to directly invest in producing acreage as well. In an *Investor* interview this past fall, before WTI fell to as little as $27 a barrel, Marc Rowland, IOG's founder and senior managing director, had warned producers, "Maybe don't believe all that is said about what prices are going to do."

At the time, IOG had done three deals; as of mid-April, it had closed three more. "We started to see a change in inquiries in January," Rowland said. "Cash flow, hedging, lower prices, bank pressures and the private-equity market froze up quite a bit, and I still think it's chilly.

"More people are in the 'lower for longer' camp now in oil and particularly for gas. It's a sort of 'tsunami of bad' out there happening in the industry."

These structures—the DrillCos—have attributes that are taken from traditional industry joint ventures and farm-outs. The arrangement more closely resembles that of a JV in which two parties—but, in this case, an E&P and a capital provider rather than two E&Ps—pay for their working-interest

SELECT DRILLCO DEALS

Operator	Investor	Date	WTI	12-Mo. Strip	Play	Investor WI	Trigger	Post-reversionary WI
Linn Energy	GSO	Jan. '15	$53	> $58	NA	85.0%	15%	5.0%
Rex Energy	ArcLight	Mar. '15	$48	> $57	Marcellus	35.0%	NA	17.5%
Legacy Reserves	TPG	July '15	$53	> $56	Permian	87.5%	1.0x ROI then 15.0% IRR	63% on ROI then 15% on IRR
LoneStar Resources	IOG	July '15	$47	> $50	Eagle Ford	90.0%	NA	10.0%
Seneca Resources	IOG	Dec. '15	$40	> $48	Marcellus	80.0%	15.0%	15.0%
Alta Mesa Holdings	Bayou City	Jan. '16	$29	> $33	Stack	80.0%	15%/25%	20%/7.5%
Rex Energy	BSP	Mar. '16	$31	> $40	Marcellus/ Utica	15% in 1st 16 wells; 65% in rest	None	N/A

N/A = Not applicable. NA = Not available. Source: Oil and Gas Investor

The Alta Mesa deal calls for 20 wells in each of three tranches during this and into early next year. Bayou City is paying up to $3.2 million for each well for 80% of Alta Mesa's working interest. That will drop to 20% upon Bayou City reaching a 15% IRR from a tranche and to 7.5% upon reaching a 25% IRR.

percentage of the wells' cost in defined acreage. In most of these new DrillCo structures, the E&P regains some of the financial partner's working interest after the latter has gained a stated level of return.

A JV-type deal was struck by Benefit Street Partners LLC (BSP) earlier this year with Rex Energy Corp., involving some 48,000 acres in Ohio and Pennsylvania. It's a DrillCo structure, but a first of its kind, said Tim Murray, BSP managing director and head of energy origination in Houston.

BSP is an affiliate of Providence Equity Partners LLC and has $11 billion under management.

"Most DrillCos have you paying for acreage upfront," Murray said. "This deal does not include either cash or carry for acreage contributed."

The partnership involves up to 58 wells, of which 15 were already completed, but not yet flowing into sales. BSP pays 15% of the first 16 wells' cost in Rex's 42,000-acre Moraine East area of the Marcellus and 65% of six wells in a 6,300-acre area, Warrior North, in the Utica. In an option to participate in 36 additional wells, BSP's working interest will be 65% for $138 million, bringing its total contribution in the JV to $175 million.

With the funding, Rex expects to be able to complete 15 additional wells this year. BSP will receive an acreage assignment of 15% in the Marcellus area and 20% in the Utica area.

Murray is often asked how he won such a deal. BSP's arrangement is simple, he said. "It's like an industry deal, only without any carry. Rex appreciates that we're a financial partner and we don't want to own it forever.

"I want it to be successful and to sell it back to the company. They know that, eventually, we will go away, whereas an industry partner might hold it forever."

Other new DrillCo structures include an eventual reversion, such as 75% working interest declining to 25% upon the financial partner receiving, for example, a 15% internal rate of return (IRR). In that structure, Murray said, "basically, you're making 15% plus whatever the value of that 25% residual working interest is.

"We have no reversion, so we're coming in heads up. We're paying our share of the well and not paying for any of theirs. We're basically an industry partner."

Also traditional as in an industry JV, if BSP plans to sell, Rex has the right of first refusal. "We are very relationship-focused, so our druthers would be to sell it back to the company." Meanwhile, if the E&P operator's ownership changed hands, "it doesn't impact us. That's pretty key for capital providers in this environment to basically have a nonrecourse deal not affected by what's going on with the company," Murray said.

Other deals BSP is working on are also in unconventional resource plays. The greatest appetite is in areas with newbuild infrastructure where producers have minimum volume commitments (MVCs) to midstream operators. "If the volume isn't delivered, there is a financial penalty," Murray noted. "Rex really wanted to fill those volume commitments. There are others in the same situation."

In mature areas, MVCs are less common. "Not so in the Utica and Marcellus. There had to be strong commitments from the E&Ps to build all of those takeaway facilities." There have been some in the Eagle Ford, Bakken and Delaware Basin, but they're primarily in Appalachia and the Haynesville.

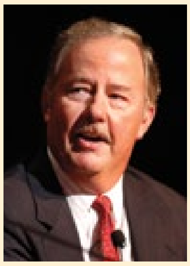
"Those transportation commitments can pressure an operator," Murray said. "Get the wells drilled and the volumes online. Almost everyone in the Marcellus and Utica signed up for an MVC. If you didn't, you couldn't get your product to market."

Murray's experience as a long-time financier may have helped him strike the deal with Rex. At one time, Murray operated an E&P asset after a management team walked away. The property, which is in Alabama, had been purchased for $160 million; Murray sold it a year later for $240 million.

"We understand the business," he said. "We don't micro-manage operational details about how you're fracking the wells or how to choke them and who to hire. We understand the operational decisions that have to be made. People without operating experience can't say that."

"Drilling partnerships are credit accretive to producers with the right kind of asset."

Will McMullen, *Bayou City Energy Management LLC*



"Those transportation commitments can pressure an operator. Get the wells drilled and the volumes online."

Tim Murray, *Benefit Street Partners*

'A bridge to somewhere'

Also a veteran E&P financier, IOG's Rowland founded the firm to buy working interests in exploitation acreage onshore the U.S. as a joint-interest partner. "I call it a bridge to somewhere—to sell out, to refinance, to go public," he said. "We're that bridge capital. I think we are a user-friendly product and we're right here in Dallas."

Some operators took on more debt in the second quarter of 2015 as oil prices were climbing back up. "They have only dug a deeper hole," he said in an interview this spring. "It's time to tighten your belt. Keep your balance sheet in shape."

Rowland was chief financial officer of Chesapeake Energy Corp. until 2010, when he left to lead its pressure-pumping unit, Frac Tech Services LLC. IOG's start-up was funded with more than $350 million from institutional investors and private-equity partner Metalmark Capital LLC. Fortress Investment Group LLC joined in May 2015 with $330 million. By this past April, IOG's total deployable capital was more than $930 million.

The firm aims to invest in established leasehold with financially sound operators where there is evidence of repeatability, operational quality, rock quality and cost efficiency. "Everyone is focused on costs being down, but, even today, I see examples of wells by Operator A that cost $1 million more than B's and B's are better wells," he said.

IOG's deals to date have been in the Marcellus, Bakken, Permian, Eagle Ford and the Stack play in the Anadarko Basin. Takers like these DrillCo arrangements for myriad reasons. They may need to HBP their leasehold, fund their share of nonoperated wells, fulfill MVCs, maintain an investment-grade credit rating, keep staff in place, provide bank collateral and/or make distributions.

"It's a bridge to solve a problem or achieve an objective," he said.

In December, Rowland announced a deal with Seneca Resources Corp., the unregulated E&P unit of regulated investment-grade utility National Fuel Gas Co., to develop its Marcellus leasehold in Elk, McKean and Cameron counties in north-central Pennsylvania. The arrangement involves up to 80 wells in 10,500 acres.

IOG will have an 80% working interest and is obligated to participate in the first 42 wells; it has an option until July 1 to participate in 38 more. Seneca's costs will be reduced some $200 million in the first batch and $180 million in the second. It retains its 7.5% royalty interest in addition to 20% working interest in the first. In the second, it will retain 10% royalty interest and 20% working interest. After IOG achieves a 15% IRR, Seneca's working interest will increase to 85%.

"We wanted to be a direct property owner and not be affected by the balance sheet of our partner."

Marc Rowland,
IOG Capital

This past summer, Rowland closed three deals for $185 million in drilling-capital commitments. In the Stack play, the commitment is $60 million and involves both operated and nonoperated wells; in the Bakken, $25 million; and in a deal with Lonestar Resources Ltd. in the Eagle Ford, up to $100 million.

The Lonestar deal has IOG paying up to 90% of the wells' cost and, after IOG achieves an undisclosed IRR, Lonestar's interest becomes 90%. With its spare cash flow, Lonestar plans to do more farm-ins with its neighbors.

In early April, Rowland was closing a sixth deal—a second involving nonop wells in the Bakken. A fifth deal was in the Permian Basin; the first well in that one had already been drilled. Areas that have piqued IOG's interest were the five in which it has done deals to date, plus the Scoop play, which is also in the Anadarko Basin and south of Stack.

Capital for acquiring acreage and for start-up management G&A "is not completely gone," Rowland said, "but it certainly is reduced." At an investment conference recently, an energy private equity manager with a large firm told him that, within its portfolio, only one rig was running.

"We wanted to get away from the PE market. It's well-served and was, basically, 'Write me a check.' We wanted to be a direct property owner and not be affected by the balance sheet of our partner."

Five of IOG's six deals are in oil plays. IOG did the Seneca deal in part because it was able to get a good hedge at the time, the production is dry gas and Seneca owns the property, so there is no royalty dilution. Seneca also owns the midstream assets.

Otherwise, Rowland said, he can't remember one recent gas deal he looked at that came close to being economic. Not the Haynesville, Fayetteville, Woodford or Barnett. And gas plays that had NGL uplift in 2014 have dived with oil, he noted.

"It still has to get back to the economics," he said. "Something that doesn't generate north of 20% IRR at the wellbore isn't a project an operator would want to drill anyway."

Instead of 'tuition dollars'

Formed in the second quarter of 2015, Bayou City Energy Management LLC also invests directly into existing operations and drilling rather than underwriting management teams.

"We're not going to partner with someone who doesn't already have an asset," McMullen said in an interview. "We can work with someone who is circling an asset as well, but we won't support a G&A budget until that asset is acquired.

The capital is used to buy more acreage or accelerate development.

"We're not giving teams hunting licenses. Not to say a strategy is better or worse. We just don't have the time and capacity to fund what I call 'tuition dollars.' We want to go into geologically derisked situations with drilling inventory and cash-flowing reserves already in place."

Like Rowland's, McMullen's office has also become busier this year. "Back in 2015, the head fake we saw in the spring gave a lot of producers hope that we were out of the woods and were going to jump right back to $80 oil.

"Now, down to $27 and back to $40, everyone is slowing down, trying to hunker down and eliminate all unnecessary costs, while also seeking to strengthen balance sheets. Drilling partnerships are credit accretive to producers with the right kind of asset."

To date, Bayou City has done deals in the Stack play with Alta Mesa Holdings LP, in conventional oil drilling with TXon-SCZ LLC in the nearly century-old KMA Field in North Texas, and with White Knight Resources LLC in three septuagenarian fields in the San Joaquin Basin of California.

The latter two are balance-sheet investments in what McMullen calls "platform companies." The difference is that each operates only in that area; the partnership with Alta Mesa is a DrillCo in that it is specific to Alta Mesa's leasehold in Kingfisher County, Oklahoma.

A drilling partnership has to work at a better than 20% IRR single-well type curve or it isn't a good tool for an operator, McMullen said.

"You have reversionary interest to the operator. The majority of the cash flow is going first to the financial sponsor and that threshold is in the mid-to-low teens and then reverts back to the operator. The operator gets to claw back some of the interest in the wells.

"If you never get to that first threshold in terms of returns, they're not a good DrillCo candidate. The quality of the asset in a DrillCo matters a lot."

The Alta Mesa deal calls for 20 wells in each of three tranches during this and into early next year. Bayou City is paying up to $3.2 million for each well for 80% of Alta Mesa's working interest. That will drop to 20% upon Bayou City reaching a 15% IRR from a tranche and to 7.5% upon reaching a 25% IRR.

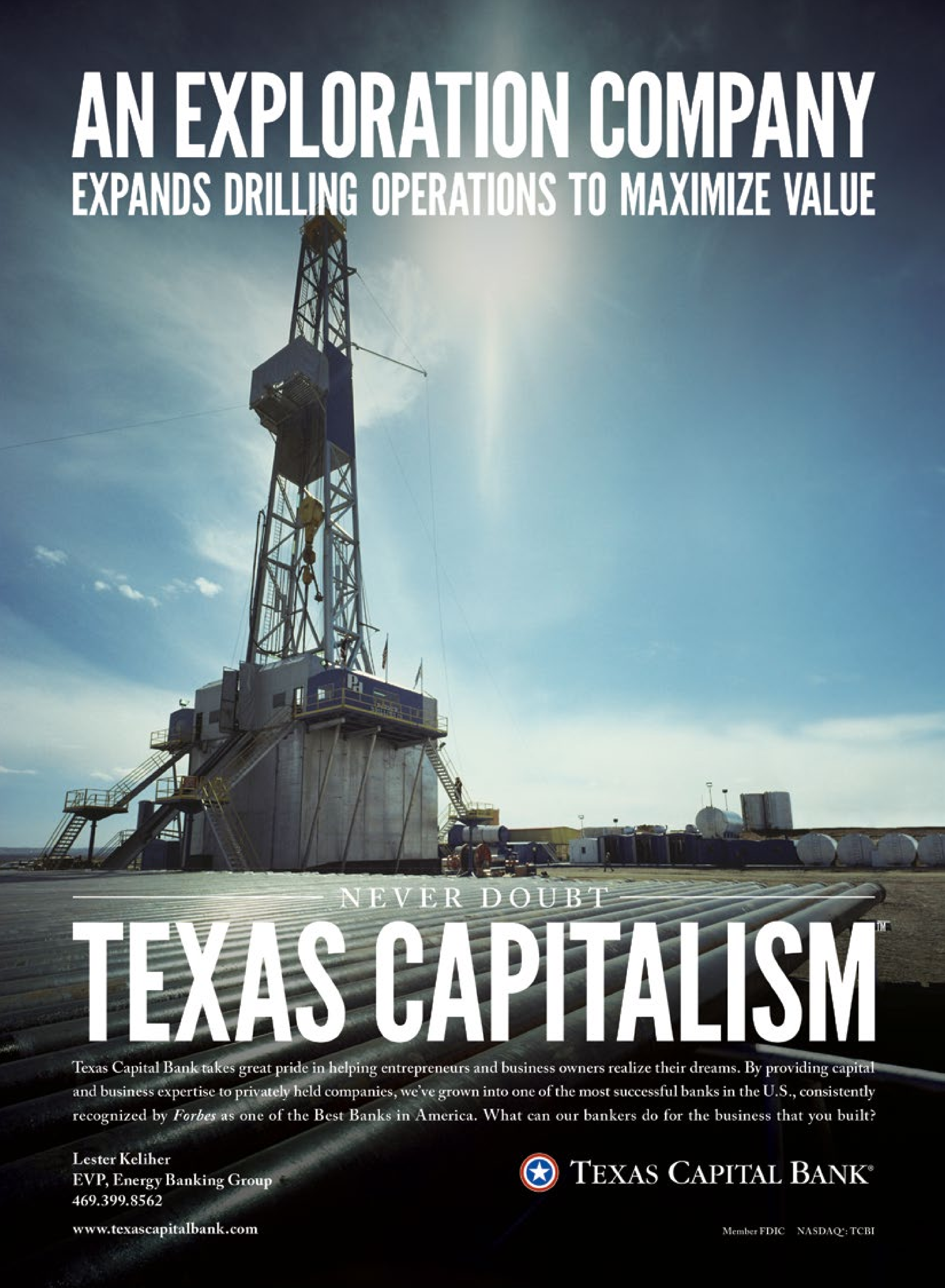
The deal came about in part through McMullen's familiarity with the operator, gained while he was with Denham Capital Management LP. Alta Mesa is a portfolio company. Also, Bayou City partner Mark Stoner was Alta Mesa's vice president of finance.

"So we both knew the company well and understood its position in Kingfisher very well. Relationships' importance can't be overstated. There are a lot of nuances that go into decisions when you're drilling a well. Having a partner you trust enables you to actually put in practice what you put on paper."

In the two platform investments, a sound balance sheet was critical, and the candidates were too small for large private-equity firms. Bayou City's investments are between $5 million and $50 million. "The niche we sought to serve was the smaller end of the market."

For the balance of 2016, McMullen expects to enter more DrillCo arrangements, rather than platform investments. "The drilling partnership is a solution when you have large bid-ask spreads. In balance-sheet deals, the word 'valuation' pops up often, and there can be a large discrepancy between the sponsor's valuation and the operator's valuation."

In a DrillCo, the question is primarily of whether the acreage can generate sufficient production. "We've seen that as an easier path in terms of getting more interesting opportunities in this market," he said. "As prices stabilize—if they do—and the bid-ask stabilizes, you might see more platform-company investments by us." ■


AN EXPLORATION COMPANY
EXPANDS DRILLING OPERATIONS TO MAXIMIZE VALUE
NEVER DOUBT
TEXAS CAPITALISM™
Texas Capital Bank takes great pride in helping entrepreneurs and business owners realize their dreams. By providing capital and business expertise to privately held companies, we've grown into one of the most successful banks in the U.S., consistently recognized by Forbes as one of the Best Banks in America. What can our bankers do for the business that you built?
Lester Keliher
EVP, Energy Banking Group
469.399.8562
www.texascapitalbank.com
TEXAS CAPITAL BANK®
Member FDIC NASDAQ®: TCBI

'TIL DEBT DO US PART

Access to debt fueled shale players' fast growth; that approach is being re-examined as they repair their balance sheets.

By Leslie Haines

The oil and gas industry has always had a voracious hunger for capital in all its forms, especially during the past decade of the shale revolution, with debt in the form of reserve-backed loans or public notes and high yield playing a huge role as companies marched across the shale landscape.

But clearly the business model of when and how to use debt needs to be refined, as many companies stretched their balance sheets too far and the value of their collateral sank. In April 2016 alone, some 11 E&P companies filed for protection under Chapter 11 of the bankruptcy code, listing collective debt of $15 billion that must be restructured, refinanced or forgiven.

At investor conferences throughout this past spring, E&P executives' remarks focused on balance sheet strength and balance sheet repair, more so than at any time in recent memory. While the upstream industry undergoes a prolonged and necessary adjustment to new realities, the subject has become so important that the IPAA held a full day of discussions on debt in Houston, at the request of some of its members.

Here, we share some of the comments from that April conference, edited for length.

Scott Rees, chairman and CEO, Netherland, Sewell & Associates

The world is different when things slow down. What's more and more important is making sure your story is documented and consistent, making sure things hang together. When you are in a distressed situation, it's critical understanding what your assets are really worth.

When a company is close to bankruptcy, most of the bondholders don't want to own oil and gas properties, but if they do, they want to make sure those PUDs have real value and are not just numbers. Maybe at $30 or $40/bbl they don't have value, but at $50-$60 they do make sense.

For due diligence in reserve reports, in theory it is the underlying value of the assets you're looking for: you look at production trends, undeveloped opportunities, and you ask: Are the volumes really there? In marginal properties, fundamentals are even more important, such as operating costs and shared expenses among the categories of reserves—what is your blow-down situation and what's going to happen if you don't drill now, but just produce?

We also ask: Is there firm transportation or not? On capital costs, make sure they are consistent with what the reserves are—people are increasing their laterals and frack density.We like to think reserves are everything … but they don't address everything else. There are other things companies have that generate revenue, such as midstream, salt water disposal wells. Those are not handled within a reserve report, so recognize that.

When you are in a distress situation you're going to look at things in a lot more detail. An E&P can use the third-party consultant as a potential screen to see what issues don't work. You'll have a lot of people coming in to look at your assets so you need to know what they are worth, because they going to look for every weakness they can and haircut the number.

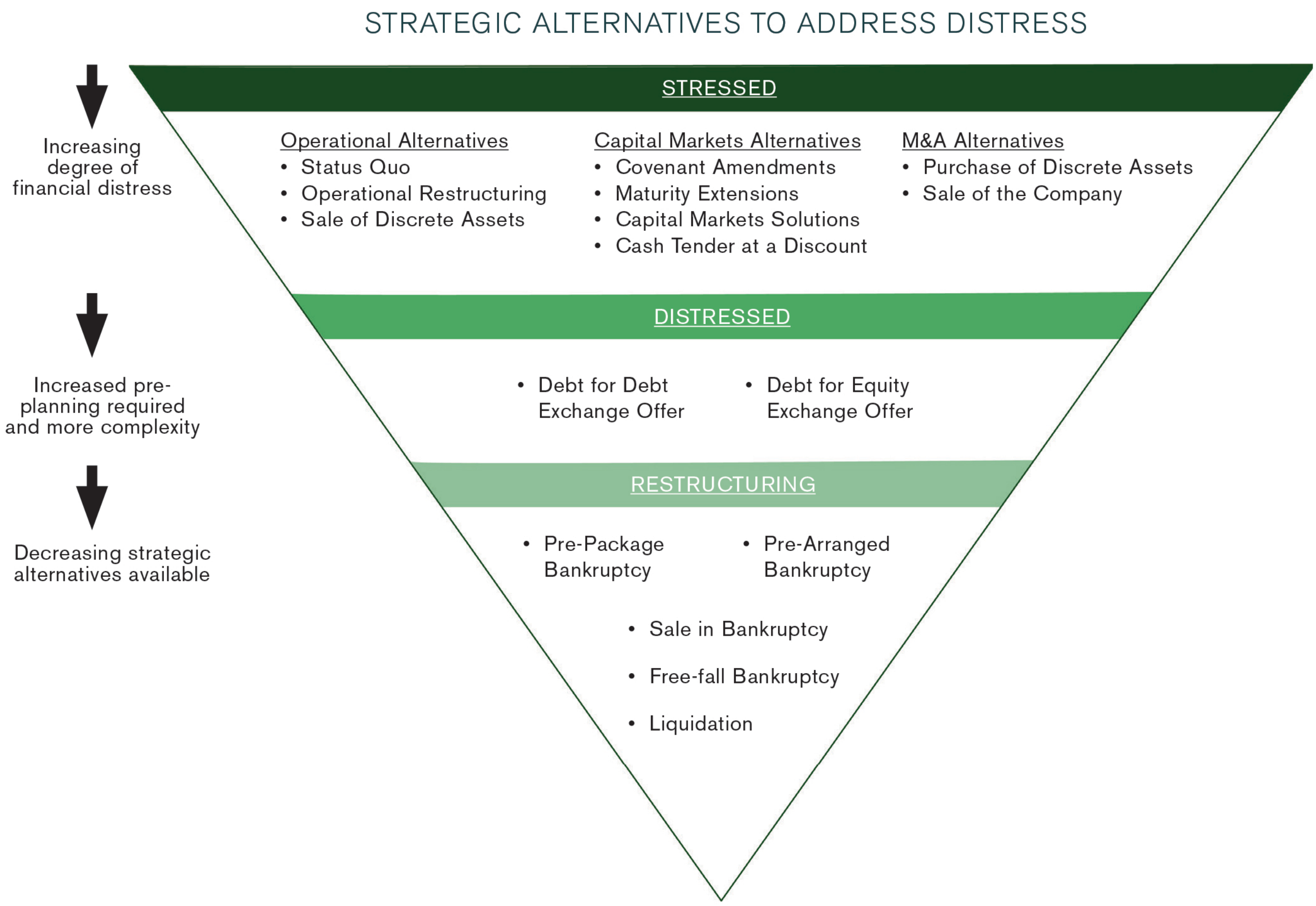
Joshua Scherer, founding partner, Ducera Partners LLC

We've represented companies and investors in Ultra Petroleum, Paragon Offshore, Peabody Energy and some undisclosed situations. When evaluating a company's strategic alternatives, you have to appropriately address all alternatives, and look at it through the eyes of a company's investors.

There are usually early warning signs that boards and executives need to consider: often these are industry-specific early warnings (for example, technological changes brought about the collapse of parts of the printing industry).

Capital markets' early warning signs include a declining stock price … and a transition of debt ownership from traditional lenders to others such

> "THE THINKING OF 'NOT ON MY WATCH' CAN LEAD TO BAD DECISION-MAKING. YOU NEED TO CONSIDER BANKRUPTCY AS A STRATEGIC ALTERNATIVE."
>
> ***—Joshua Scherer,***
> *Ducera Partners LLC*



As financial distress deepens, increased planning is required, solutions become more complex and there are fewer strategic alternatives. *Source: Ducera Partners LLC*

as hedge funds. I am constantly surprised that private business owners, whether founders or sophisticated private equity firms … are often the last to realize their company is facing dire circumstances. I believe one reason is that they have so much private information that's not available to public markets, that they believe they have superior insight.

In one real-world example, we were hired by a very sophisticated PE firm that believed the company did not have any near-term liquidity issues, notwithstanding all the signals from capital markets … but within a month of our hiring, due to tight liquidity, we had to put in place a rescue financing using unencumbered collateral … to buy the company time to effectuate controlled restructuring of its balance sheet.

Once capital markets start anticipating the likelihood of distress, control of the situation by the company can deteriorate rapidly. Perception becomes reality.

It's critical that boards and executives are objective in evaluating the factors and potential triggers that precipitate distress. Key triggers include: covenants, liquidity, debt maturities, qualified opinions from auditors. We believe liquidity is above all the most important—it's the lifeblood of a company.

Often, executives who see the early warning signs take too long to take action. As the financial distress increases, the fewer financial strategic alternatives are available to you. A prepackaged bankruptcy or out-of-court process can be very short, is organized and costs less than a "free-fall" bankruptcy where the company has no plan and is forced to file.

The thinking of "not on my watch" can lead to bad decision-making. You need to consider bankruptcy as a strategic alternative.

In oil and gas, many execs believe M&A is off the table because companies are over-leveraged. That's simply not true. But I do firmly believe companies at this moment in time can and should be prepared for a variety of scenarios, including relatively depressed energy prices for an extended period of time.

Ray Lemanski, managing director, high yield, KeyBanc Capital Markets

Historically, in no industry other than, perhaps, commercial and residential real estate, is access to and the maintenance of credit as important

"Banks are trying to impose anti-cash hoarding rules on companies."

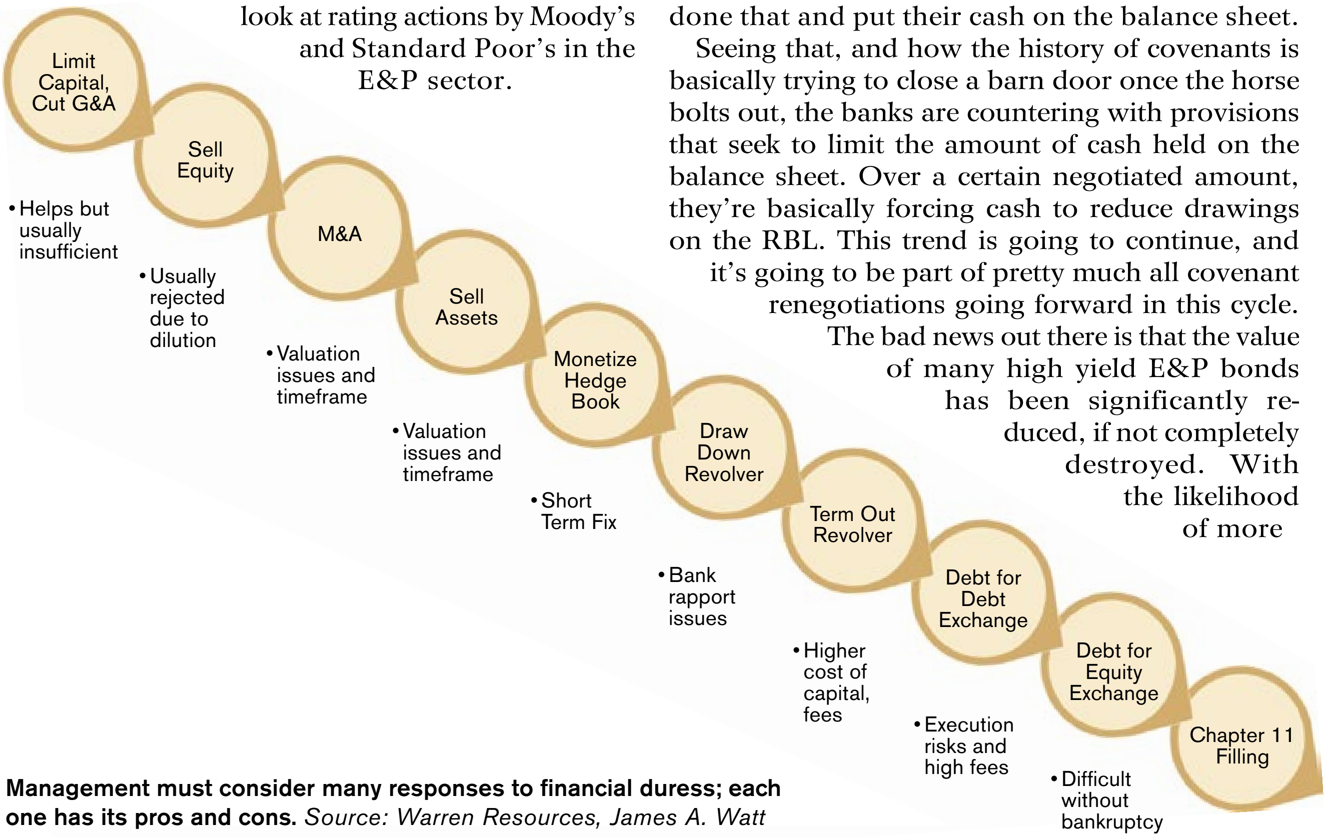
Ray Lemanski, *KeyBanc Capital Markets*

as it is to exploration and production of oil and gas. This is particularly so for independent producers.

Growing companies that are characterized by depleting asset bases, with varying economic lives, a need for cash upfront to access returns over a longer horizon and equity capital ultimately insufficient in availability (and frankly too dilutive to provide attractive investment returns given the risks you all take)…all this has made debt a historically integral part of the industry's development.

You'll note that in 2015, the dollar value of distressed exchange offers and defaults were roughly equivalent, while year to date, you've got more defaults than distressed exchange offers. I think that will not only continue; I believe it will intensify as 2016 goes on. I think that for the most part, you'll see less distressed exchanges and more pre-packaged bankruptcies.

Another way to look at this is to look at rating actions by Moody's and Standard Poor's in the E&P sector.



Management must consider many responses to financial duress; each one has its pros and cons. *Source: Warren Resources, James A. Watt*

Downgrades in the sector are outpacing upgrades by more than 10:1. Negative credit watched and negative rating outlooks paint the same picture but with somewhat less severity, but it reinforces the trend.

So ok, things are ugly out there, and you didn't need me to tell you that. But nevertheless, the sun comes up every morning, and we need to deal with the environment that we've been handed. Companies are taking steps to meet these challenges.

The first and most obvious is to work with their bank lenders in managing the difficult situation in "RBL land." And, as borrowing bases are being redetermined, borrowers are seeking covenant relief, a trend we expect to intensify as the year goes on. Borrowers ask for relief from leverage and interest coverage maintenance tests, less so from the current ratio.

Some borrowers are also looking for relief in the area of allowed capex and asking for permission to buy back junior ranked bonds at, usually, a significant discount to par. The banks are countering with increased pricing, trying to trim exceptions in the credit agreements in other areas, and also putting in what are called anti-cash hoarding provisions.

This last term is notable. Anti-cash hoarding is following the example of a number of borrowers in other sectors during the 2008 meltdown, who basically drew down their entire revolver, and that was legally allowed. A number of E&Ps have done that and put their cash on the balance sheet.

Seeing that, and how the history of covenants is basically trying to close a barn door once the horse bolts out, the banks are countering with provisions that seek to limit the amount of cash held on the balance sheet. Over a certain negotiated amount, they're basically forcing cash to reduce drawings on the RBL. This trend is going to continue, and it's going to be part of pretty much all covenant renegotiations going forward in this cycle.

The bad news out there is that the value of many high yield E&P bonds has been significantly reduced, if not completely destroyed. With the likelihood of more defaults and bankruptcies, whether through an extended court process or an abbreviated pre-packaged process, a fair amount of high yield debt is going to be converted directly into common equity.

This will have an impact on reducing the outstanding balance of high yield E&P bonds relative to the market.

We live in a world where institutional portfolio managers are required to have their industry weighting somewhat proportional to market-based indices for the purpose of prudent diversification. So this would actually have the impact of potentially increasing the demand for E&P debt of a certain quality, because investors will actually find themselves under-invested as we get into the fourth quarter of this year, maybe the first quarter of next year.

Things to look for as we move forward in this drama: in the near-term, a lot more of the same. Defaults, bankruptcies, other reorganizations, asset sales, acquisitions and increasingly, pre-packaged bankruptcy as prime rebalancing mechanisms.

Longer term, I would look for somewhat reduced dependency on the RBL, more term debt with more layering in the cake, with return of the word that has not been heard in the high yield market in a long time: subordination. There are new classes of investors who are starting to form who I think will be the buyers of those. The market will be in a period of transition over the next year, and ultimately a degree of equilibrium will be restored for finance in the industry and for capital providers.

Jack Smith, managing director in debt capital markets, J.P. Morgan

I'd like to talk about how you can be interactive and proactive with your banker. I think in January and February of this year we really did reach the point of capitulation, not only with investors but with many in the industry … and in Josh's words, companies have so much leverage that it's a cash structure they cannot grow out of, and they are making the moves they need to make. Who's going to lend you capital when you are two times levered?

Number one, be early. Two, be communicative. And three, know that we want to help.

How do you deal with existing loans? When you are thinking about this, ask what is the bank asking from me, in exchange for what am I needing from them? They want to protect their balance sheets too, and they face increased regulatory pressures.

We're not scared to go through a bankruptcy—it's not a bad word, it's something banks have dealt with time and time again, in other industries and in the oil patch. In many cases we think it's the right outcome for a company. We do think DIP loans and exit financing will be available for restructured companies.

> "THERE IS DEBT CAPITAL AND JUNIOR CAPITAL AVAILABLE; DEBT'S JUST GOING TO LOOK A LOT DIFFERENT THAN IN 2014."
>
> ***—Jack Smith,***
> *J.P. Morgan*

If I have no assets today but have private equity backing and am thinking about acquiring assets … the bank is open for new deals. But pricing and borrowing bases probably are going to be more conservative than in the past. Covenants are going to be tighter. Stretch and nonconforming structures … I don't think you're going to see them that much these days.

In the RBL market, we underwrote a $500 million deal for sponsor-backed acquisition of some assets. To syndicate it, we went to 26 banks; it was a very well structured deal, and had I gone out to them in late 2014 I would have gotten 25 out of 26. In first half 2015, I probably would've gotten 15 or 17 of those banks—we ended up with six, plus the three that originally underwrote it. So that's a 33% hit rate.

So the market is still open, but deals need to be very well structured in order to be achieved.

Preferred equity with a long-term maturity that's a long way out there is one way to skin the cat, with a PIK element to it, or a subordinated bond. On a higher note, we have had success raising junior debt or mezzanine money. Guys who know the sector are coming back to the table and looking to invest again.

The borrowing base of the future is going to be facing a lot more scrutiny, with a lot more scrutiny on how much debt is below that.

We were actually surprised by the level of debt companies had incurred, whether high yield or other debt. We understand it helped deliver a lot of technology to the industry and allowed the U.S. to become a production leader. The problem is, when liquidity dries up but you've got to keep drilling to keep the value of your assets up, but you've got this fixed capital structure, and the math just doesn't work.

SAMPLE DEBT REDUCTION ACTIONS
EP Energy
Repurchased $609.0 million of face value debt for about $287 million
Sold Haynesville Shale assets for $420 million
Reduced net debt to $4 billion (pro forma) from $4.8 billion at 2015 year-end
Banks cut its borrowing base to $1.65 billion from $2.75 billion
Received covenant relief: Replaced the 4.5x debt-to-EBITDAX covenant with a 3.5x first lien, debt-to-EBITDAX covenant through 1Q18.
EP Energy has approximately $800 million of total liquidity.

Source: Company reports.

Don Dimitrievich, head of energy and power, Highbridge Principal Strategies LLC

In the new normal, E&Ps will have more limited access to capital. The traditional means of banks helping producers through a downturn like this are somewhat pressured now. They want to help but just can't [given new regulatory constraints]. Debt markets are largely closed, but maybe if $50/bbl is solid this will open back up.

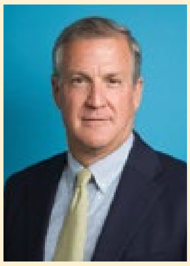
At Highbridge, we have made $3 billion in direct investments in energy over the last five years. We focus on secured debt term loans with more capital advanced than in a traditional reserve-backed loan. We provide access to what I call "protective financings and rescue financings" such as second liens. This gives you breathing room as you go to market to sell non-core assets and pay down debt.

"Banks want to help but are limited by new regulatory constraints."

Don Dimitrievich, *Highbridge Principle Strategies LLC*

Thomas J. Edelman, managing partner, White Deer Energy

After 40 years in the business, my two rules are: one, being somewhat cowardly in business, use modest leverage; and two, never go into business without an equal partner who can come into the room and say, "You are a damn fool."



"Never go into business without having an equal partner who can tell you when you are a fool."

Thomas J. Edelman, *White Deer Energy*

This is really the time to position yourself for the upturn. Leverage was built up dramatically and was not sustainable. Bank lending was actually very responsible and they are being remarkably mature … the problem was more in junk bonds and mezzanine.

I think 30% to 50% of the industry will be unrecognizable … the destruction in the industry is unfortunately just beginning … The fear of dilution is the greatest impediment to the recovery, in my opinion.

There are two types of oxygen coming into the room now: one, a small increase in the price of oil, and two, I think we've seen the bottom. ■

FINDING CAPITAL

A DIRECTORY

I = Investment banking;
C = Commercial banking;
M = Mezzanine;
P = Private equity/debt;
A = Advisor

To submit information or corrections, contact Emily Moser at emoser@hartenergy.com

A

Aethon Energy (P)
Gordon Huddleston
214-890-3600
ownerrelations@aethonenergy.com

Amegy Bank of Texas (C)
Steve Kennedy
713-235-8870
steve.kennedy@amegybank.com

Angelo, Gordon (P)
Todd Dittmann
713-999-4320
information@angelogordon.com

Apollo Global Management (M, P)
Greg Beard
212-822-0750
gbeard@apollolp.com

ARC Financial Corp. (P)
Brian Boulanger
403-292-0790
bboulanger@arcfinancial.com

ArcLight Capital Partners (P)
Daniel Revers
617-531-6300
info@arclightcapital.com

ARM Energy Resources (P)
Marshall Lynn Bass
281-826-5476
lbass@asset-risk.com

Associated Bank (C)
Tim Brendel
713-588-8205
timothy.brendel@associatedbank.com

Avista Capital Holdings (P)
Graham Whaling
713-328-1099
info@avistacap.com

B

R. W. Baird (I, A)
Frank Murphy
314-445-6532
fmurphy@rwbaird.com

Bank of America Merrill Lynch (C, I)
Oscar Brown
713-759-2559
crystal.elizondo@baml.com

BOK Financial (C)
Mickey Coats
918-588-6409
mcoats@bokf.com

Bank of Texas (C)
Mynan Feldman
214-987-8894
mfeldman@bankoftexas.com

Barclays Capital (A, C, I, M, P)
Gregory Pipkin
713-236-3954
gpipkin@barcap.com

Bay Capital (M)
Rob Lindermanis
832-980-8074
robl@baycapcorp.net

Bayou City Energy Management (P)
William McMullen
713-400-8200
will@bayoucityenergy.com

BB&T Capital Markets (C, I)
Jeff Forbis
713-797-2141
jforbis@bbandt.com

BBVA Compass (C)
Dorothy Marchand
713-968-8272
dorothy.marchand@bbva.com

Benefit Street Partners (P)
Tim Murray
713-965-7975
tim.murray@provequity.com

Blackstone Energy Partners (P)
David Foley
212-583-5832
foley@blackstone.com

BlueRock Energy Capital (M, P)
Stuart Rexrode
281-376-0111 ext. 305
srexrode@bluerockep.com

BMO Capital Markets (I)
Tod Benton
713-546-9733
tod.benton@bmo.com

Bregal Energy (P)
Nathan Campbell
212-704-3000

Brycap Investments (P)
Bryant Patton
469-248-3081
bpatton@brycap.com

C

Campbell Lutyens (P)
Brian Chase
212-223-1798
chase@campbell-lutyens.com

Canaccord Genuity (I)
Steve Harris
713-331-9452
sharris@canaccord.com

Capital One Energy Banking (C)
Bob Mertensotto

713-435-5710
bob.mertensotto@capitalone.com

The Carlyle Group (P, M)
Rahul Cula
212-813-4564
rahul.culas@carlyle.com

Carnelian Energy Capital Management (P)
Tomas Ackerman
info@carnelianec.com

CCMP Capital Advisors (P)
Christopher Behrens
212-600-9640
christopher.behrens@ccmpcapital.com

Chambers Energy Capital (M, P)
Phillip Pace
713-554-6773
info@chambersenergy.com

Chiron Financial (A, P)
Scott Johnson
713-929-9082
sjohnson@chironfinance.com

CIBC (A,I)
Jordan Horoschak
713-452-1593
jordan.horoschak@cibc.com

CIT Corporate Finance, Energy (C, I)
Mike Lorusso
212-771-6002
Mike.Lorusso@cit.com

Citigroup (A, I)
Stephen M. Trauber
713-821-4800
stephen.trauber@citi.com

CohnReznick Capital Markets Securities LLC (I)
Sam (Yinglin) Xu
917-472-1300
sam.xu@crcms.com

Comerica Bank (C)
Mark Fuqua
214-462-4424
mfuqua@comerica.com

Conway MacKenzie (A)
Jeff Huddleston
713-650-0500
jhuddleston@conwaymackenzie.com

Credit Agricole Corp. (A, C, I, M, P)
Mike Willis
713-890-8600

Credit Suisse Securities (USA) (I)
Tim Perry
713-890-1400
timothy.perry@credit-suisse.com

Crestmark Bank (C)
Steve Hansen
713-868-1350
shansen@crestmark.com

CSL Capital Management (P)
Charlie Leykum
281-407-0686
charlie@cslenergy.com

CSG Investments (P)
Hans Hubbard
713-353-4642
hhubbard@csginvestments.com

D

Denham Capital Management (P)
Carl Tricoli
713-217-2700
carl.tricoli@denhamcapital.com

Deutsche Bank (I)
Dan Ward
212-250-3915
dan.ward@db.com

Donovan Capital (A, P)
John W. Donovan Jr.
713-812-9887
jwd@donovancap.com

E

East West Bank (C)
Christina Kitchens
469-801-7367
christina.kitchens@eastwestbank.com

Edge Natural Resources (P)
Roy Aneed
214-774-9635
info@edgegenr.com

EIG Global Energy Partners (M, P)
Curt Taylor
713-615-7400
curt.taylor@eigpartners.com

EnCap Flatrock Midstream (P)
Bill Waldrip
210-494-6777
bw@efmidstream.com

EnCap Investments (P)
Murphy Markham
214-599-0800
mmarkham@encapinvestments.com

Encino Energy (P)
Hardy Murchison
281-254-7070

EnerFi Capital (P)
Jay Snodgrass
212-964-3680
jay@enerficap.com

Energy and Infrastructure Capital (P)
John Dannan
203-703-9150
info@eicapital.com

Energy Capital Partners (P)
Rahman D'Argenio
973-671-6100
rdargenio@ecpartners.com

Energy Capital Solutions (A, I)
J. Russell Weinberg
214-219-8201
rweinberg@nrgcap.com

Energy Special Situations Fund (P)
Tim Sullivant
713-869-0077
tsullivant@essfunds.com

Energy Spectrum Capital (P)
Jim P. Benson
214-987-6103
jim.benson@energyspectrum.com

Energy Trust Partners (P)
Leland White

214-987-6104
leland.white@energyspectrum.com

Energy Ventures (P)
Einar Gamman
281-768-6722
einar.gamman@energyventures.no

Enstream Capital (A, I, M,P)
J. Daniel Mooney, CPA, CFA
214-468-0900
dmooney@ecmtx.com

EY Capital Advisors
Ronald S. Montalbano
713-750-4833
ron.montalbano@ey.com

Evercore Group (I, P)
Dan Ward
212-857-3100
dan.ward@evercore.com

F

FBR Capital Markets (I)
Allen Morton
713-226-4718
amorton@fbr.com

First Reserve (P)
Neil A. Wizel
713-227-7890
nwizel@firstreserve.com

Five States Energy (M, P)
Gary Stone
214-560-2584
gstone@fivestates.com

G

Galway Capital LP (I, A)
Travis M. Pace
713-952-0186
tpace@galwaycapital.com

Global Energy Capital (P)
Russell Sherrill
713-993-7222
info@geclp.com

GCP Capital Partners (I, P)
V. Frank Pottow
212-894-0610
fpottow@gcpcapital.com

Greenhill and Co. (I)
Howard House
713-739-2030
howard.house@greenhill.com

GSO Capital Partners (M, P)
Larry Tharp
713-358-1367
Larry.Tharp@gsocap.com

GulfStar Group (I)
Cliff Atherton
713-300-2020
catherton@gulfstargroup.com

H

Houlihan Lokey (A, I)
J.P. Hanson
212-497-4262
jhanson@hl.com

I

IBERIABANK (C)
W. Bryan Chapman
713-624-7731
bryan.chapman@iberiabank.com

ING Capital (C, I)
Charles Hall
713-403-2424
charles.hall@ing.com

Independent Bank (C)
Bob Glosson
214-720-1211
bglosson@ibtx.com

Intrepid Financial Partners (A)
R. Adam Miller
832-975-8004
miller@intrepidfp.com

IOG Capital (P)
Michael Arnold
214-272-2702
marnold@iogcapital.com

J

Jefferies (A, I)
Ralph Eads
281-774-2015
reads@jefferies.com

Johnson Rice & Co. (I)
Josh Cummings
504-584-1247
cummings@jrco.com

JPMorgan Securities (I)
Mike Lister
214-965-2891
mike.lister@jpmorgan.com

Juniper Capital (P)
Richard K Gordon
713-333-4715
rgordon@juncap.com

K

Kayne Anderson Energy Funds (P)
Danny Weingeist
713-493-2000
dweingeist@kaynecapital.com

Kessey Capital Partners (A)
Scott Kessey
713-385-8245
tpk@kesseycap.com

KeyBanc Capital Markets (A, C, I)
Raj Trikha
216-689-4089
trikha@key.com

KLR Group (I)
Edward Kovalik
713-321-2555
ek@klrgroup.com

L

Ladenburg Thalman & Co. (I)
Jim Hansen
713-353-8914
jhansen@ladenburg.com

Stratas Advisors is a global consulting and advisory firm that provides data, analysis and insight to the world's leading businesses, governments and institutions.

UPSTREAM

MIDSTREAM

DOWNSTREAM

STRATAS ADVISORS
1616 SOUTH VOSS ROAD, SUITE 675
HOUSTON, TEXAS 77057, USA
+1.713.260.6423

Lazard Ltd. (A, I)
Bruce Bilger
713-236-4600
bruce.bilger@lazard.com

Legacy Texas Bank (C)
Chris Parada
214-217-7084

Lime Rock Partners (P)
Townes Pressler Jr.
713-292-9508
tp@lrpartners.com

M

Macquarie Bank Ltd. (A, C, M)
Paul Beck
713-275-6201
paul.beck@macquarie.com

M1 Energy Capital Mgmt. (A, I, M)
Rich Bernardy
713-300-1422
rbernardy@mecapital.com

Mitchell Energy Partners (A, I)
Michael Mitchell
469-916-7484
mmitchell@mitchellenergypartners.com

Morgan Stanley Energy Partners (P)
John Moon
212-761-0591
john.moon@morganstanley.com

Morgan Stanley (I)
David Lazarus
914-225-1474
david.lazarus@morganstanley.com

MUFG Union Bank N.A (C, I)
Jamie Conn
713-655-3814
jamie.conn@us.mufg.jp

Mutual of Omaha Bank (C)
Ed Fenk
713-405-1573
ed.fenk@mutualofomahabank.com

N

Natixis Global Asset Management (C, I)
David Giunta
713-759-9401
david.giunta@natixis.com

NBH Bank (C)
David Nelson
720-529-3379
dnelson@nbhbank.com

Natural Gas Partners (P)
Tony Weber
972-432-1440
tweber@ngptrs.com

Northland Capital Markets (I)
Shawn D. Messner
612-851-4989
smessner@northlandcapitalmarkets.com

O

OFSCap (A, I)
James Row
713-812-9700
jrow@ofscap.com

One Stone Energy Partners (P)
Bob Israel
212-702-8670
ri@onestone-llc.com

Origami Capital Partners (P)
Darren O'Brien
312-263-7800
darren@origamicapital.com

ORIX Energy Capital (M, P)
Jay Mitchell
214-237-2266
jay.mitchell@orix.com

P

Parallel Resource Partners (P)
John Howie
713-238-9500
parallelr@parallelresourcepartners.com

Pearl Energy Investments (I)
Billy Quinn
214-308-5275
bquinn@pearl-energy.com

Petrie Partners (A, I)
Andrew Rapp
303-953-6768
andy@petrie.com

PetroCap Inc. (P)
Alec Neville
214-871-7967
aneville@petrocap.com

Pine Brook Partners (P)
Jim Aube
832-924-9950
jaube@pinebrookpartners.com

PNC Energy Group (C)
Tom Byargeon
713-658-3940
tom.byargeon@pnc.com

Post Oak Energy Capital (P)
Clint Wetmore
713-554-9404
wetmore@postoakenergy.com

PPHB (I)
Len Paton
713-580-2710
lpaton@pphb.com

Premier Capital Ltd. (A)
J. W. Brown
214-808-3540
jbrown@precap.com

Prudential Capital Group (I, M, P)
Brian N. Thomas
214-720-6216
brian.thomas@prudential.com

Q

Quantum Energy Partners (P)
Eric Nielsen
713-452-2050
enielsen@quantumep.com

R

Raymond James (I)
Michael Ames
713.278.5268
michael.ames@raymondjames.com

RBC Capital Markets (A, C, I)
Brian Atkins
713-403-5663
brian.atkins@rbccm.com

Red Bird Capital (P)
Hunter Carpenter
214-238-4000
info@redbirdcap.com

Regions Bank (C)
Brian Tate
713-426-7117
brian.tate@regions.com

River Capital Partners (A, P)
Samuel P. McNeil Jr.
512-814-7411
smcneil@rc-advisors.com

Riverstone Holdings (P)
N. John Lancaster, Jr.
212-993-0076
john@riverstonellc.com

Rivington Capital Advisors (A, I)
Scott Logan
303-225-0900
slogan@rivingtoncap.com

Rockland Capital Energy (M, P)
Scott Harlan
281-863-9000
info@rocklandcapital.com

Roth Capital Partners (I)
Alexander Montano
949-720-5770
amontano@roth.com

S

Sage Road Capital (P)
Josh Batchelor
713-364-1410
jbatchelor@sagerc.com

Sand River Capital Advisors (A)
Jason Whitt
432-848-3020
jason.whitt@sandriver.com

SCF Partners (P)
Andrew Waite
713-227-7888
awaite@scfpartners.com

Scotia Capital (A, I, C)
Mark Ammerman
713-759-3441
mark_ammerman@scotiacapital.com

Seaport Global Securities (I)
Ken Sill
713-658-6300
ksill@ghsecurities.com

SFC Energy Partners (P)
Michael Stolze
303-893-5007
mstolze@sfcepartners.com

Simmons & Co. International (A, I)
Jay Boudreaux
713-546-7325
jboudreaux@simmonsco-intl.com

Societe General (C)
Bet Hunter
713-759-6330
elizabeth.hunter@sgcib.com

Stellus Capital Management (P)
Todd A. Overbergen
713-292-5402
toverbergen@stelluscapital.com

Stephens Group (I, P)
Eric D. Summerhill
501-377-3401
esummerhill@stephensgroup.com

Stephens Inc. (I)
Charlie Lapeyre
(214) 258-2700

Stifel Nicolaus & Co. (A, I, P)
Ed Costigen
(314) 342-2000
ecostigen@stifel.com

SunTrust Robinson Humphrey (A, C, I, M, P)
John Fields
404-439-7449
john.fields@suntrust.com

T

Tailwater Capital (P)
Jason Downie
214-269-1183
jdownie@tailwatercapital.com

Talara Capital Management (P)
Joseph Tremblay
646-396-6040
PrivateDeals@talaracapital.com

Tenaska Capital Management (I)
Grant Davis
402-952-5708
gdavis@tenaskacapital.com

Texas Capital Bank (C)
Chris D. Cowan
214-932-6739
chris.cowan@texascapitalbank.com

Tortoise Capital Resources (P)
Robert Thummel
913-981-1020
rthummel@tortoiseadvisors.com

TPH Partners (P)
George McCormick
713-333-7181
gmccormick@tphpartners.com

Trilantic Capital Management LP (P)
Glenn Jacobson
212-607-8420
gjacobson@trilantic.com

Trive Capital (P)
Jeff Leatherman
303-507-0262
jeffleatherman@trivecapital.com

Tudor, Pickering, Holt & Co. (I)
Bobby Tudor
713-333-7100
btudor@TPHco.com

U

UBS Investment Bank (I)
Tom Langford
713-331-8300
tom.langford@ubs.com

U.S. Bank (C)
Mark Thompson
303-585-4213
mark.thompson@usbank.com

V

Vortus Investment Advisors (P)
Brian C Crumley
817-945-2400

W

Warburg Pincus (P)
Peter Kagan
212-878-0600

Weidner Advisors (A)
Bill Weidner
860-413-2001
bill@weidneradvisors.com

Wells Fargo Energy Group (C)
Bart Schouest
713-319-1850
bart.schouest@wellsfargo.com

Wells Fargo Energy Capital (C)
Mark Green
713-319-1327
mark.m.green@wellsfargo.com

Wells Fargo Securities (I)
James Kipp
713-346-2701
james.kipp@wellsfargo.com

White Deer Energy (P)
Thomas Edelman
713-581-6900
tedelman@whitedeerenergy.com

Wilcox Schwartzwelder & Co. (I)
Jason Wilcox
972-831-1300
jason@ws-ibank.com

Wunderlich Securities (A, I)
R. Kevin Andrews
713-403-3979
kandrews@wundernet.com

Y

Yorktown Partners (P)
Peter Leidel
212-515-2113
pleidel@yorktownenergy.com