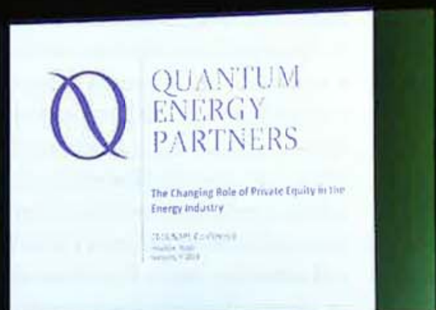
The Changing Role of **Private Equity** in the Energy Industry

By Wil VanLoh



For the North American oil and gas industry, the past decade can be best described as a great renaissance period. Colloquially named the "Unconventional Revolution," this renaissance was driven by American technology, ingenuity and entrepreneurship. The combination of advances in horizontal drilling and hydraulic fracturing of shale and other tight reservoirs unlocked a vast resource base and revitalized an industry in decline. In a brief amount of time, the widespread adoption and continuous improvement in the learning curve for these technologies enabled the United States to eclipse production levels not seen since the 1970s and emerge as the world's leading hydrocarbon growth engine.

During the Unconventional Revolution, North American unconventional resources moved sharply down the global oil supply cost curve and are now competitive with the lowest-cost oil supply sources in the world. Hundreds of thousands of jobs have been created, billions of dollars in incremental tax revenues have been generated and the global geopolitical landscape has been rewritten as our reliance on imported oil from unstable and hostile foreign countries has diminished significantly. It has truly been a remarkable period.

A simple look at a "section" of land (one square mile or 640 acres) in the Midland Basin illustrates the magnitude of this renaissance. Prior to the Unconventional Revolution, this single section of land might be fully developed with eight vertical wellbores for about $16 million and deliver almost 1 million barrels of oil. Now, that same section of land might be developed with more than 50 horizontal wellbores across seven (or more) distinct stacked formations, requiring about $280 million of investment and delivering almost 30 million barrels of oil. Said differently, an 18-times increase in invested capital generates a near 30-fold increase in recovered resources, implying a greater than 40 percent decrease

in finding and developing costs per barrel of oil.

This paradigm shift in recoverable resources and capital intensity brought about a modern-day land rush and attracted hundreds of billions of dollars to the North American oil and gas industry. As capital poured into the oil patch, a proliferation of private equity fundraising and a new wave of private equity-backed oil and gas companies ensued, materially altering the competitive landscape. Since 2010, over $200 billion of energy-focused private equity capital has been raised, and it is estimated that there are currently more than 360 private equity-backed upstream companies active in the United States.

The impact of private equity on the oil and gas industry has been profound. Many of today's most economic unconventional plays — Delaware, Midland, SCOOP, STACK, Eagle Ford, Marcellus/Utica — were pioneered by private equity-backed companies that applied leading-edge technologies to resources previously known but deemed uncommercial and turned them into some of the most valuable oil and gas assets in the world.

Case in point is what Quantum-backed Vitruvian Exploration was able to accomplish in the SCOOP play. Vitruvian acquired its SCOOP asset for just over $500 million from Chesapeake Energy in 2012. Over a five-year period, Vitruvian was able to increase well estimated ultimate recovery by 140 percent, decrease drilling and completion costs by almost 50 percent, and run four rigs with internally generated cash flow. Despite a 30 percent drop in natural gas prices between 2012 and 2017, Vitruvian's entrepreneurial spirit, focus on cost efficiencies and implementation of the latest drilling and completion technologies resulted in meaningful value accretion that was ultimately realized in a $1.85 billion sale to Gulfport Energy in 2017. Without private equity capital, Vitruvian's SCOOP asset — and hundreds of similar assets across the country — may not have been properly tested or delineated and North America's current position as the leader in unconventional resource development may not have come to fruition.

As the industry shifts its focus from finding new plays through exploration to large-scale development, many people are asking if private equity capital will remain relevant. Our answer is an emphatic "yes" for a number of reasons.

The current opportunity set of identified drillable locations far exceeds the amount of public capital available for investment in the sector. We estimate that over $8 trillion is required to fully develop the North American unconventional resource plays that are currently known and economic. Add another $1 trillion for associated infrastructure, and that figure grows to approximately $9 trillion. The capital intensity of unconventional resource plays has created four or five decades of investment opportunities for both public and private equity-backed companies. Furthermore, the recent trend of public companies pledging to "live within cash flow" will create a myriad of opportunities for private capital investment. Living within cash flow means taking a more myopic approach to capital allocation; therefore, public companies will focus on their most economic inventory and look to sell noncore assets to private equity or enter into joint ventures or other economic arrangements with private equity to accelerate the development of other assets in their portfolios.

Private equity-backed companies have captured an increasing share of the acquisition and divestiture market, going from about 10 percent market share in 2010 to almost 50 percent market share in 2017. Additionally, private equity is running more than a quarter of all horizontal rigs in the U.S. today. In areas such as the Rockies, Haynesville and Eagle Ford, private equity-backed companies account for 90 percent of all acquisition activity and are leading the charge with respect to exploration and delineation. Will private equity be able to apply leading-edge technologies to these regions and build assets with comparable economics to the Permian or SCOOP/STACK? Time will tell, but we are confident they can get it done.

In addition, the capital void left by bankrupt or capital starved exploration and production master limited partnerships and mortally wounded resource funds will create attractive opportunities for private capital. Between 2013 and 2014, this group collectively acquired over $17 billion worth of assets; since the beginning of 2017, however, they have accounted for less than $300 million of acquisitions. Over this

timeframe, private equity has stepped up as a leading acquirer of conventional assets, a theme we expect will continue for the foreseeable future.

While we believe the opportunity set remains robust, the game is unequivocally changing. The era of private equity-backed companies pursuing a "lease, drill a couple wells and flip" strategy has likely passed as public companies are generally long inventory and are having to live within cash flow. Going forward, private equity-backed companies need to be prepared to drill a lot more wells to de-risk an asset and get it to a point where it is self-funding out of cash flow before it is sold. This will require longer holding periods and substantially more capital. Management teams need to build great technical staffs capable of excelling operationally and implement conservative financial principles (modest leverage and longer-tenored hedges) to ensure they have durable business models that can withstand commodity cycles.

Private equity funds will also need to be open to deploying capital into less-traditional structures. While line-of-equity commitments to startup management teams will continue, recapitalizations of existing companies, preferred equity investments, private investments in public equities, asset-level joint ventures and DrillCo structures will become increasingly common and should present attractive investment opportunities. Additionally, management teams and private equity funds will need to be increasingly flexible as they approach monetizations. The desired cash sale to a public company looking to build inventory may become less frequent in the new cash flow neutral world, so management teams and their private equity partners will need to consider a variety of other monetization options, including an IPO, selling to a public company and taking back a considerable amount of stock, and selling to other private equity-backed companies.

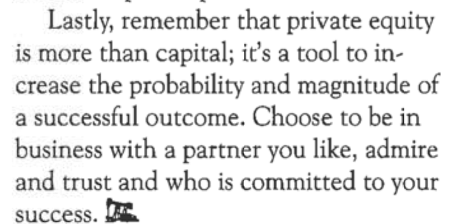
As the Unconventional Revolution enters a more mature phase, the keys to successful private equity investing will remain unchanged. Prudent capital allocation decisions, technical and operational excellence, conservative use of debt, aggressive hedging and discipline on entry and exit will continue to be critical variables to creating value for private equity-backed companies. In this next chapter of heightened competition and increased focus on longer- term development, picking your private equity partner will be more important than ever before.

A good private equity partner can add tremendous value to your business in the following ways:

- *Relationships* — Good relationships can drive increased acquisition deal flow, better financing terms, enhanced recruiting of technical and operational professionals and increased exit options.
- *Industry best practices on drilling and completing wells* — Firms with highly experienced operating executives and in-house technical professionals can help with quickly implementing industry best practices to lower costs and increase recoveries, thereby de-risking your probability of success and increasing the magnitude of your success.
- *Experience and long-term commitment to energy* — Experience gained from investing through multiple commodity cycles and a commitment to be there for you, especially when times get tough, can often be the difference between success and failure in a commodity business.

Rather than only focusing on securing the absolute best economic and governance terms when raising private equity capital, the most successful entrepreneurs have learned to find a "true partner" who brings not only capital, but also a desire for genuine alignment, experience, technical expertise, relationships and a commitment to limited intrasponsor competition in your focus area. Size your capital commitment to fund your business for the long haul as it's highly likely that you will need to hold your business longer and take an asset further down the development path.

Lastly, remember that private equity is more than capital; it's a tool to increase the probability and magnitude of a successful outcome. Choose to be in business with a partner you like, admire and trust and who is committed to your success.



About the Author

Wil VanLoh is the Founder and Chief Executive Officer of Houston-based Quantum Energy Partners and Chairman of Quantum's Executive and Investment Committees. In these capacities, he leads Quantum's investment strategy and capital allocation process. Since its inception in 1998, Quantum has been responsible for the stewardship of more than $15 billion of equity capital, making it one of the leading providers of private equity to the energy industry.

Posted on August 8, 2018