

SIFTING BIG DATA

New data systems are smoothing the way for analysts as they assess the value of complex lease holdings. The results can help in day-to-day operations as well as in A&D.

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The complexity of today's natural gas plays is well documented anecdotally, but the computations behind the assessments of these assets vary widely from one E&P to the next. The quality and detail of information presented also ranges widely as due diligence is conducted. And in many cases, the assets aren't well presented or depicted clearly.

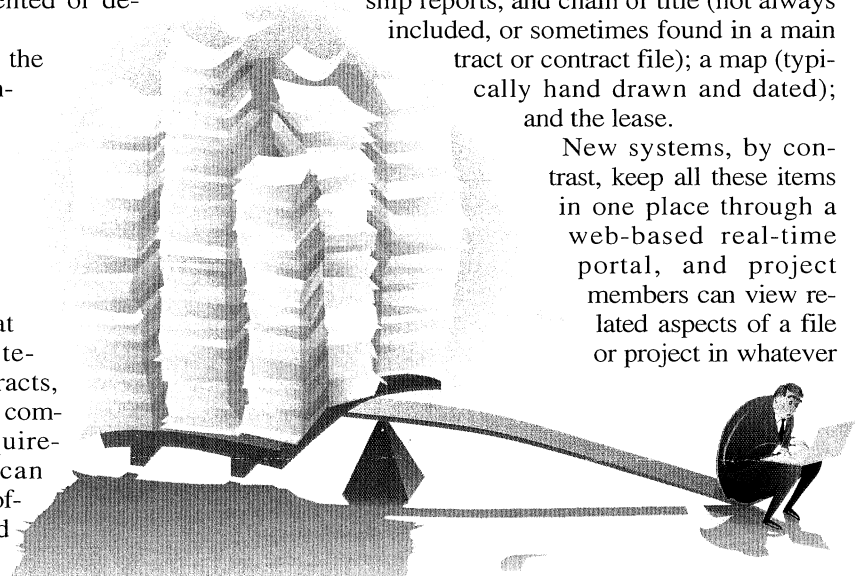
For E&Ps leveraging the new legion of platform-neutral, lease-acquisition and asset-management systems on the front end of their back offices, for accounting and production, the business improvements are many. Systems that are tract-based and integrate tract status, contracts, division orders, grantor comparisons, payment requirements and mapping can provide chief financial officers with the detail and audit trail they require.

Bradley Williams, managing member of Elephant Oil & Gas Co., a Dallas based E&P, has firsthand experience with the benefits of such databases. They have helped the company leverage its entire talent pool, from lease inception to raising capital to sale at the end of the land life cycle. "The system we use allowed our buyer to complete the due diligence period of a divestiture in nearly half the time it took to close a similarly sized divestiture without the software (system)," he says.

Databases are helping companies achieve better returns on investment for a variety of reasons. Most important, these systems offer a centralized place to conduct analysis, expediting and widening access for lease administration and other departments to be more efficient, rather than relying on the disparate files many E&Ps still use. Further, people can work together in a real-time decision-making environment to support and pursue company objectives.

In the past, the components of a lease file were checked manually by lease administration, probably in separate locations and using different file types, e.g., hard copy, spreadsheets and e-mail. Similar efforts were required for lease purchase reports, bonus payment receipts (with offer letters), source deeds, mineral ownership reports, and chain of title (not always included, or sometimes found in a main tract or contract file); a map (typically hand drawn and dated); and the lease.

New systems, by contrast, keep all these items in one place through a web-based real-time portal, and project members can view related aspects of a file or project in whatever

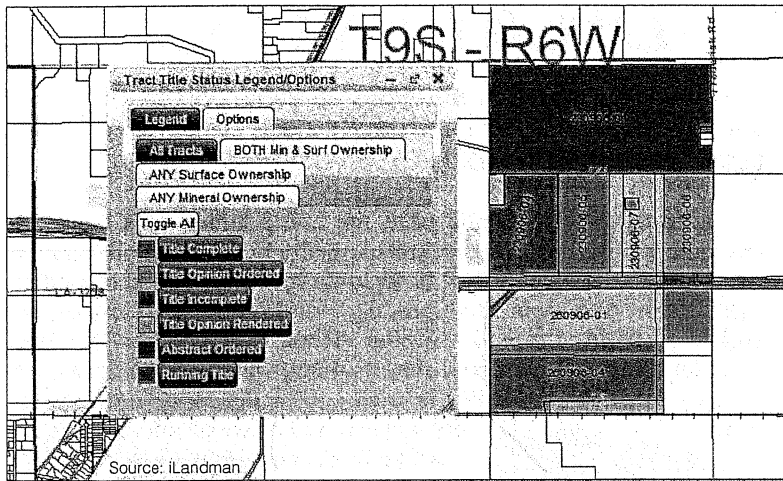


format they choose for comparisons. Cross references are automatic and simultaneous. The operator runs these comparisons on the contract, tract and grantor comparison reports to confirm that the proper math and lease language has been used. If not, this information can travel back and forth within the database between the relevant parties until the issue is resolved and the project can be approved. In many cases, the exchange resembles more an e-mail chat than an interruption in the work flow. In the past, cross references were handled manually and could take weeks, instead of minutes or hours.

The ramifications of these efficiencies are also significant for the C-level suite, which benefits from reporting that is accessible and as current as the day's work. In the past, for example, rental information might have been reported on a monthly or quarterly basis. If the manual data-entry window was missed or entered after reporting, there was a significant lag time in information. This was also true for damages and renewals. Today, using a system that is tract based, the senior financial management team can view as much or as little of a leasehold as they wish, in real time. They can also review the audit trail, which tracks changes along the way by individual, date and time.

Acree analysis is also streamlined. The

Title Status For Due Diligence Purposes



Due diligence in today's shale plays comprises hundreds and thousands of leases and tracts of land. The parties involved need to manage "big data" to know the status of titles on each lease. Today's systems integrate and summarize this information in one image.

dashboard automatically provides acreage figures per project area, with no report required, and acreage can be viewed for producing and nonproducing assets. E&Ps don't have to send field crews out (with the significant costs of travel, lodging, researching, recontacting owners, recreating lease documents, and using couriers) to randomly gather information on lease assets. Instead of spot-checking a leasehold, the entire asset is housed in one place.

Jordyn Gingras, land and legal manager for Elephant Oil & Gas, describes the system's merits: "Being able to present the assets in a real-time map, and then allowing the buyer to drill down to the supporting tract or contract if they choose, is a formidable and credible tool. The cost eliminated for both the seller and buyer is mutually substantial, and we have a complete information set to work from on all assets in one place."

As senior financial executives pursue a deal, they know exactly what the value of their assets represents, and it can be shown on a map.

Leveraging big data

The complexity of the new shale plays is widely recognized, and it presents a unique challenge for companies trying to manage and leverage "big data." Charles Karren, director of energy industry strategy for Oracle, recently noted a comment from Jay Pryor, executive vice president of business development for Chevron Corp. Pryor said, "Chevron manages as much data as Google." This data assessment includes financial spend and operational data.

Operators smaller than Chevron have fewer resources, so the idea of trying to manage spreadsheets with tens of thousands of lines of information while feeling confident about clarity is even more intimidating. What can be accomplished today, with a system that accesses a project's many attributes all the way down to the singular lease, is powerful.

"The ability to generate numerous reports

from the title database and quickly access images of recorded instruments can be extremely valuable in terms of meeting critical deadlines and closing a deal rapidly when the courthouse is overcrowded," notes Williams.

Lease administration and division order analysts are frequently left out of decision-making aimed at improving the process of generating critical opinions and documentation for exploitation and drilling. Nevertheless, they are generally the stewards of the orderliness and quality of these approvals in making the decision to move forward. Generating drilling title opinions, division order title opinions, joint interest billing decks and entitlement decks involves time-consuming confirmation and approval processes.

Further, most states have statutes requiring division orders 90 to 120 days from first production. While much of this can be auto-generated through a database, many E&Ps are still handling these computations manually, leaving less time for analysts to review special royalty provisions.

Significant time is also expended gathering information from a variety of locations, when a centralized system can ultimately push this standardized information to the accounting system. Senior finance's inclusion of lease administration and division order analysts in the decision tree is critical in order to improve results from the clearinghouse skills of the lease administration team. These professionals will be able to provide more true analysis and spend less time data checking if they are involved. This further leverages the system so that capable and high-value employees are used where their skills are needed most.

Lastly, an E&P's value and credibility is significantly enhanced by the ability to demonstrate verifiable data and to visually present assets when pursuing a funding partner. E&Ps that can provide a potential capital partner with a one-stop information source for due diligence when seeking to raise funds for lease acquisition or production offer a buttoned-up view of their holdings and ease the pathway to engaging multiple financing partners simultaneously. This quickly broadens financing options.

One avid system user, Bryce Hundley, controller for Belmont Resources, Traverse City, Michigan, explains the benefits: "We completed two good-sized divestitures between September 2009 and August 2010. Both buyers explained they had looked at numerous other opportunities and our reports and presentations were far and away the cleanest they had seen."

It is sometimes difficult to quantify these factors, but the cost savings and transparent representation offered by these systems have value in any market environment, bringing big data to the fore. □

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