

Improving Upstream Performance Study

EAST TEXAS / NORTH LOUISIANA

“FULL CYCLE ANALYSIS”

PRODUCTION, DRILLING & COMPLETION

OPERATIONS BENCHMARKING

2nd Edition



Improve Your Capital Efficiency & Reliability

- enhance *Production Efficiency* and reduce your *field operating costs*, including *lease fuel & taxes*
- increase the *Drilling & Completion Efficiency* of your wells

What Clients Say:

"Participating in the study allowed us access to impact knowledge, industry knowledge. Ziff Energy did a tremendous job of normalizing the data by identifying and removing the natural advantages and disadvantages of a field. Your study saved my company \$750,000 annually."

Operations Leader,
Independent Producer

"The value for changes we implemented was estimated at \$5,000,000 per year, a very good return on investment."

Senior Engineer,
U.S. Major

"This is to let you know that we are pleased with your work. The best practices information is useful in our forward project planning. Ziff Energy's industry workshop was an excellent opportunity to learn from and network with the experts."

Ziff Energy delivers the full package - a statistically rigorous analysis coupled with real suggestions that can be used to improve operating performance. It is refreshing to work with Ziff Energy's staff, which consists of industry professionals who are knowledgeable and experienced."

Development Manager,
Large Independent Producer

1st Full Cycle Study for East Texas /North Louisiana Growth Basin

The East Texas/North Louisiana region, as a result of rapid development of the tight Bossier and Haynesville Shale resource, has become one of the most significant North American gas supply basins, surpassing the Gulf of Mexico in total production volumes. Currently, production in the region is 7.2 Bcf/day, far surpassing 5.4 Bcf/day from the Gulf of Mexico (3.3 Bcf/day from Shelf, 2.1 Bcf/day from Deepwater).

Ziff Energy initially benchmarked East Texas/North Louisiana production operations a decade ago.

The study will again benchmark detailed production costs, and at the request of clients, we will also examine for the first time, Drilling & Completion performance to deliver you insight on "full cycle" economics. Drilling & Completion benchmarks will include detailed cost metrics, time/depth and rate of penetration metrics and analysis of drilling performance drivers.

New aspects of the 2nd edition study will also include benchmarking Operating Efficiency/Uptime Reliability metrics for fields and Ziff Energy's new *automated download method of gathering data*, which reduces the client's efforts by more than half compared with the prior method of data gathering via data spreadsheets. This 2nd edition study will, for the first time, include performance assessment of **Haynesville Shale** upstream activities (drilling & completion, plus production).

You should subscribe to this study if you . . .

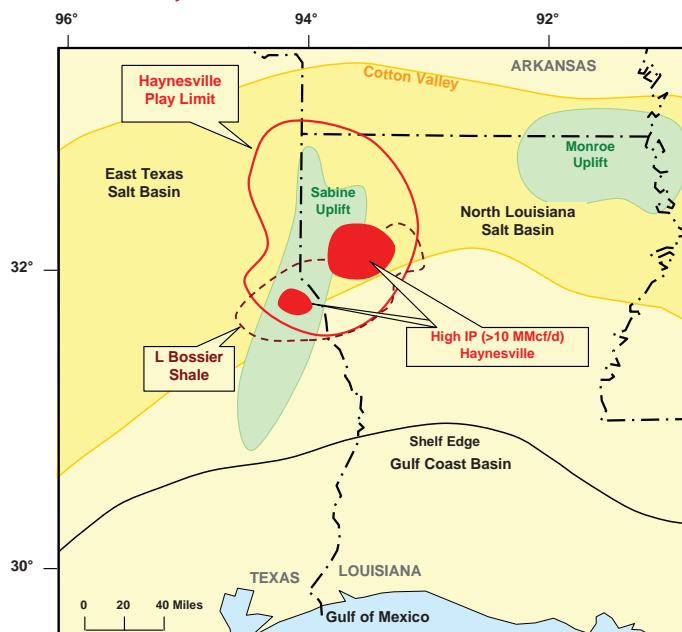
Field-Level Operations

- want to **reduce your operating costs** and **increase your production volumes**
- want comparative *benchmarks* for your East Texas/North Louisiana gas operations -- OpEx, Taxes, Lease Fuel Usage (the 'big 3')
- want reliable information to set specific achievable objectives for asset teams to increase production and reduce operating expense
- are considering expanding your assets in East Texas/North Louisiana, especially through acquisitions.

Well-Level CapEx

- want to **reduce your drilling and completion costs**
- want consistent, reliable, and detailed information to assess the strengths and opportunities for improving your current drilling effectiveness
- need to improve your drilling and completion efficiency given weak natural gas prices
- want to stretch your capital budget by drilling more wells cheaper and quicker.

Haynesville Shale Gas Production



Past Operators in Ziff Energy's E. Texas/N. Louisiana Operations Study:

- ❖ Anadarko Petroleum Corporation
- ❖ BP
- ❖ Chevron
- ❖ ConocoPhillips
- ❖ Devon Energy
- ❖ El Paso Production Co.
- ❖ Marathon Oil Company
- ❖ OXY USA Inc.
- ❖ Samson Resources
- ❖ Torch Energy Advisors

Our deliverables to you . . .

Customized Field-Level Production Analysis

- **NEW: 'Uptime Reliability' Performance relative to peer fields & operators**
- Cost Analysis for each field; **identifies potential cost savings by cost category for each field**
- analysis of Operating **Cost Drivers**; highlighting ideas for reducing cost
- identifies tendencies within your organization towards high or low cost for each cost category
- compares your fields and company vs. peer fields/companies and industry.

Customized Well-Level Drilling & Completion Analysis

- Rate of Penetration, Time/Depth & Cost metrics
- separate analysis for each type of well drilled (e.g. Deep Bossier, Haynesville)
- compares your wells vs. peer wells/ companies and industry
- analysis of Drilling & Completion **Cost Drivers** (e.g. program drilling learning curves).

Comprehensive Report

- organized by **multiple peer asset categories or groupings of similar fields** based on operational and geologic considerations
- a proven study **designed with considerable input from clients**; Ziff Energy's analysis highlights findings **unavailable from traditional corporate-level or broad regional comparisons**.

Submit Data Electronically - Much Easier!

- Our improved well and field cost data gathering approach is now based on your own data structure, so data retrieval is far easier, and fast! Ask us about the details of **Electronic Data Gathering** from your accounting and well data systems.

Private Debriefing

- to help focus your team on *immediate solutions*.

Experienced Team

- Operations Professionals with 20+ years experience have the knowledge and background to provide specific and actionable solutions
- Our **'Center for Benchmarking Excellence'** was established in 2007 to ensure that Ziff Energy studies for upstream operations are the best executed, through Automated Data Gathering and centralized control of data integrity, review & analysis.

"We got more than what we paid for, which is a pleasure to say. I would recommend this process to any company wanting to move from the 'also ran class' to 'best in class.'"

Operations Manager,
Independent Producer

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"The Ziff Energy personnel were very helpful in gathering and analyzing the data necessary for this study, and the application of the things that could be learned from the data.."

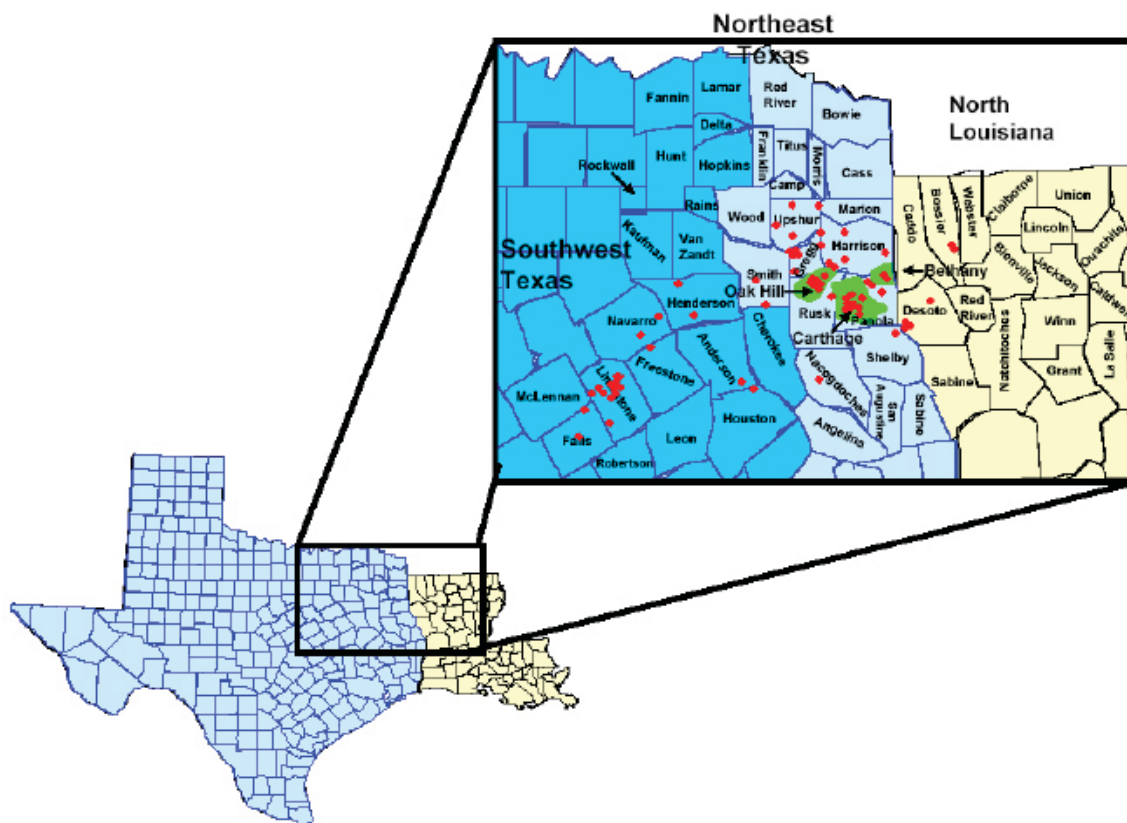
Senior Staff Production Engineer,
Independent

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*"Our company participated in the third Gulf of Mexico (Shelf) Reducing Operating Costs Study. The scope and format of the study assisted us in focusing on specific areas of improvement. The presentation of the results of the study by your consultant was concise and informative and reflected considerable knowledge of operations in the Gulf of Mexico. As a result, we have been able to **dramatically improve our operational efficiencies and lower our costs.**"*

Vice President,
Gulf of Mexico, Super-Major

Fields in Ziff Energy's 1st East Texas/North Louisiana Study ...



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Why Ziff Energy?

Since 1996, Ziff Energy has completed over 170 multi-client studies, assisting 100+ E&P companies in 30 countries to improve Operations Efficiency and Reliability by comparing performance against similar gas or oil fields (to date 3,800+ oil and gas fields have been analyzed in our field operations studies). We are Upstream Professionals with 20+ years experience and have the knowledge and background to provide specific and actionable solutions. Our **'Centre for Benchmarking Excellence'** was established in 2007 to ensure that Ziff Energy studies for upstream operations are the best executed through Automated Data Gathering and centralized control of data integrity, review & analysis.

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