

January 2003

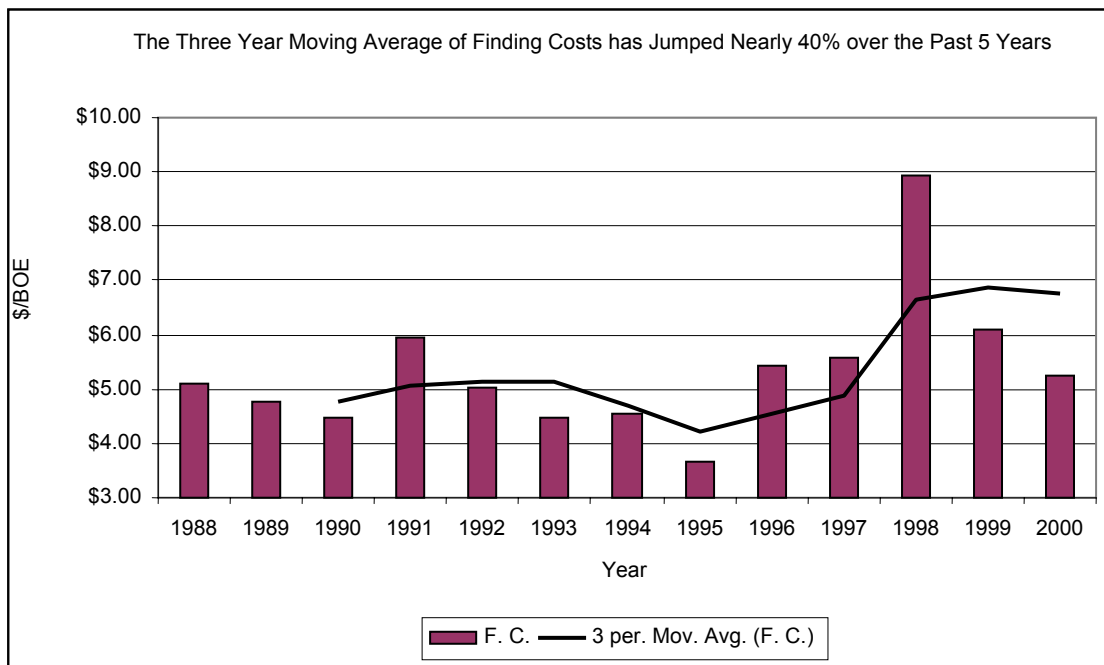
# Louisiana Energy Topic

Department of Natural Resources  
A Supplement to LOUISIANA ENERGY FACTS on Subjects of Special Interest

Technology Assessment Division

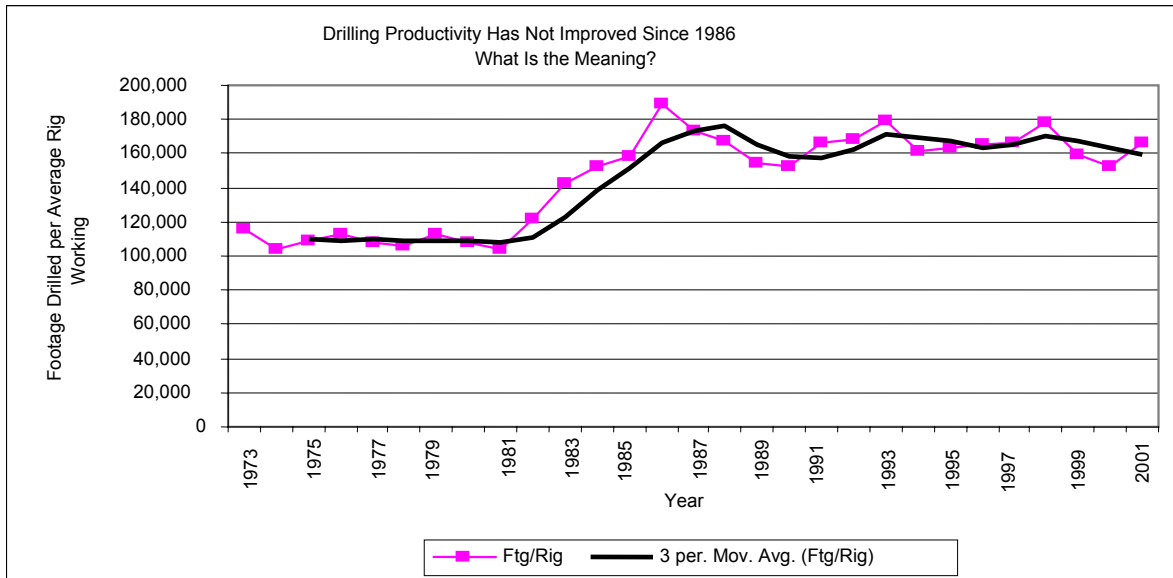
## FINDING COST INCREASE CHALLENGES E&P SECTOR

For an exploration and production (E&P) company, finding costs are those costs associated with adding to the company's oil and gas reserves. These costs include surface costs and subsurface costs. The Energy Information Administration (EIA), through its Financial Reporting Service, keeps track of the cost elements associated with calculating an E&P company's finding costs. To calculate finding cost it is necessary to convert oil and natural gas reserves to a common unit, in this case Btus. Then the Btus can be converted back to a common denominator, barrels oil equivalent. The costs are accumulated and divided by BOE to arrive at an annual cost per BOE, expressed \$/BOE. It is customary to average these costs over a 3 year period to eliminate annual volatility.

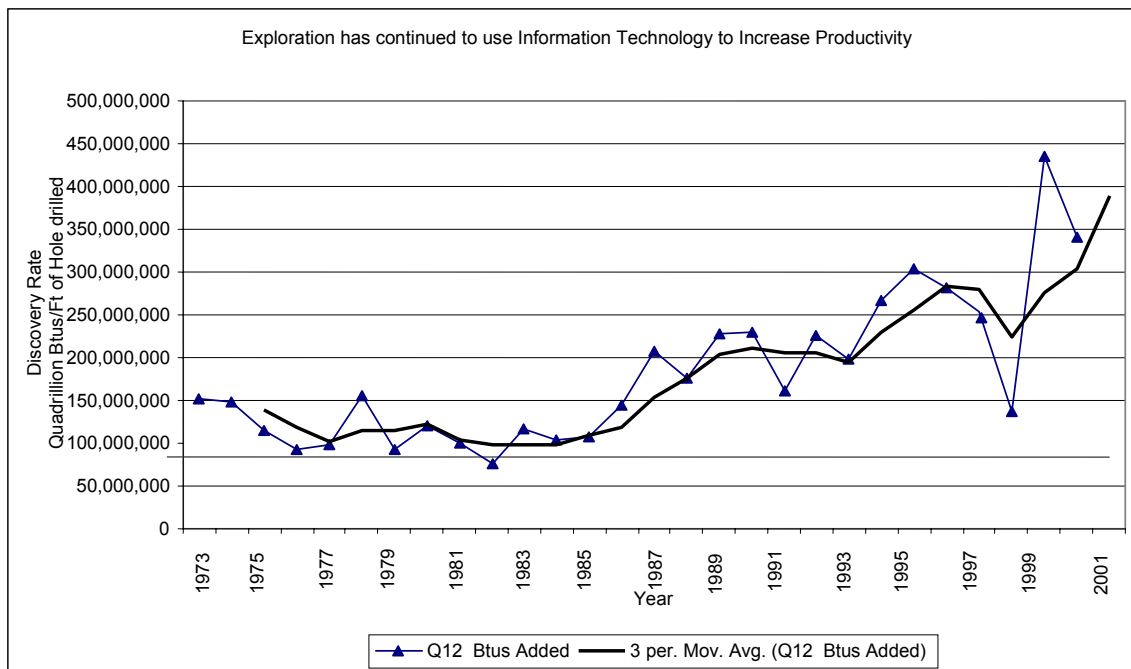


To analyze why costs have jumped in the recent past it is useful to examine two broader sets of productivity data: Physical Drilling Productivity and Knowledge Based Discovery Rate Productivity.

**Despite sharing best practices, benchmarking, and the introduction of new technology, drilling productivity, as measured by footage drilled per rig per year, has remained relatively constant for the past 14 years (1987-2001).**



**Knowledge based geophysical and geological technology delivers a steady increase in industry productivity as measured by discovery rate per foot of hole drilled**



While many factors go into the details of finding cost and why such costs might be rising, it should be noted that well drilling operations are conducted under highly prescriptive rules and regulations which add to costs; whereas seismic acquisition and reservoir characterization, and knowledge based activities are not. This may help explain why rig footage drilled productivity is flat while discovery rates are improving.