

LOUISIANA SHORT TERM OIL AND GAS FORECAST

with Production, Severance, & Royalty Price Sensitivity

1999 Report

**Prepared by:
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**Baton Rouge
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EXECUTIVE SUMMARY

Louisiana oil and gas production continues to decline. The average decline rate over the past ten years was 2.5% for oil and 1.0% for gas. In the near future, Louisiana's oil and gas production is forecasted to decline faster than in the past ten years. The recent low decline rate was a product of high levels of drilling in the 1980's that created surplus production capacity today, improvement in drilling techniques and tools, and development of new exploration technology. The recent decline in oil and gas prices will drop the state mineral revenue.

PRICES The average prices for oil and gas have been dropping since October 1997. At today's conditions, oil prices are expected to be between \$11 and \$17 per barrel for the next five years, and gas prices are expected to be between \$1.70 and \$2.30 for the next five years. After the year 2010, oil and gas prices are expected to increase. The projected oil price for Fiscal Year 1998/99 (FY1998/99) is \$12.00 per barrel, for FY1999/00 is \$13.00 per barrel, and for FY2000/01 is \$14.25 per barrel. The projected gas price for FY1998/99 is \$1.80 per MCF, for FY1999/00 is \$2.05 per MCF, and for FY2000/01 is \$2.15 per MCF.

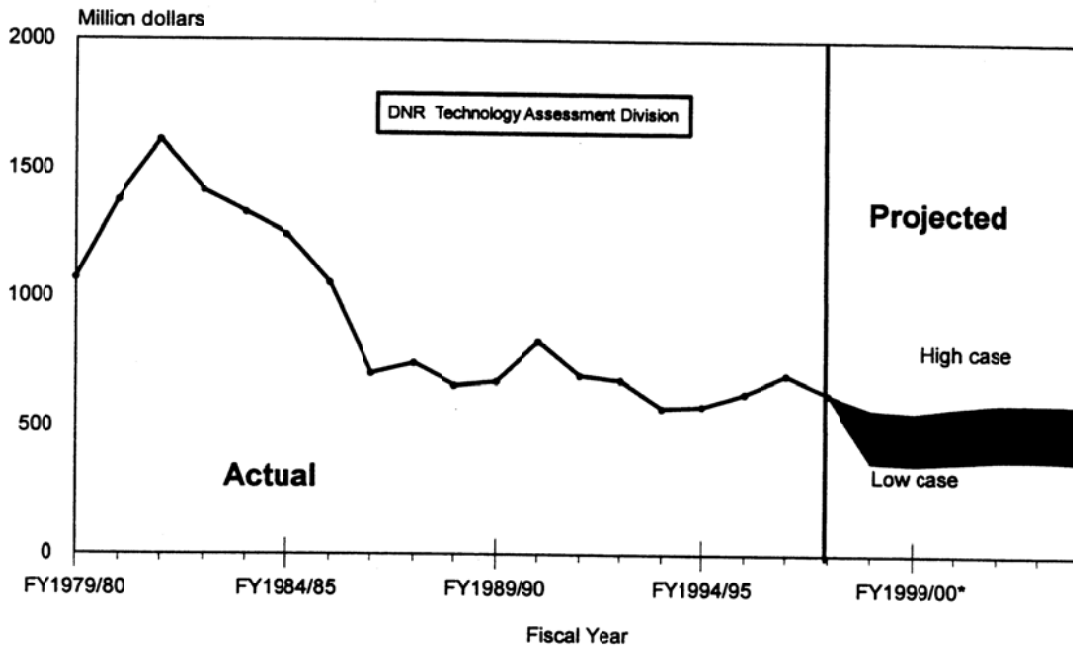
PRODUCTION Over the past two years, the oil production rate has decreased less than one half percent per year. Gas production increased 2.5% in FY1996/67, but in FY1997/98 gas production dropped 2.9% to 1,576 billion cubic feet (BCF). In recent months, the price of oil and gas has been dropping rapidly; whereas, the cost of drilling has been falling at a slower pace. These factors will cause oil and gas production to drop. The oil and gas short term production forecast predicts a decline rate of 4.6% per year for oil and 3.6% per year for gas over the next few years, while the long term production forecast models predict a similar decline rate. The oil production model forecasts production of 125 million barrels in FY1998/99, 118 million barrels in FY1999/00, and 113 million barrels in FY2000/01. The gas production model forecasts production of 1,512 BCF for FY1998/99, 1,458 BCF for FY1999/00, and 1,405 BCF for FY2000/01.

REVENUE Louisiana revenue from minerals can be divided into three groups: 1) royalty, 2) severance tax, and 3) bonus, rental, and overriding royalty (BR&O). The royalty and severance tax are solely dependent on production and prices. The BR&O is principally dependent on market outlook. Because market outlook can vary widely, there is also some uncertainty in predicting BR&O revenue. The averages of historical revenue are assumed to be representative of future revenue for BR&O. Based on the above assumptions, production and prices the projected mineral revenue is: \$434 million in FY1998/99 (\$158 million in royalty and \$242 million in severance tax), \$443 million in FY1999/00 (\$168 million in royalty and \$242 million in severance tax), and \$454 million in FY2000/01 (\$173 million in royalty and \$249 million in severance tax). All of these revenue projections depend on how closely actual oil and gas production follows the DNR Technology Assessment Division's model predictions, and how price projections compare to actual prices. Future prices or production changes will directly affect the actual revenue collected. It is difficult to say anything about the oil and gas market with complete certainty. However, we feel our forecast

results are conservative and that any improvement in prices and production will improve the state revenue projections.

Figure 1

**LOUISIANA TOTAL REVENUE FROM
ALL MINERAL PRODUCTION
Excluding Federal Lands & OCS**



The *Louisiana Short Term Oil and Gas Forecast* report provides the following information. The oil and gas price chapter shows projected prices for the next five years and their comparison to other national and international projections. The oil and gas production chapter shows short term forecasts and long term production forecasts. The mineral royalty revenue chapter shows projected revenue by source. The severance tax revenue chapter shows projected revenue by source. The BR&O revenue chapter shows projected revenue by source. The last chapter is a summary of the royalty, severance tax and BR&O historical and projected state mineral revenue, excluding proceeds from federal lands and the Outer Continental Shelf (OCS) area. Appendix A shows the definition of abbreviations and acronyms. Appendix B shows the definition of terms used in the Forecast. Appendix C shows historical revenue from the OCS area and federal lands. Appendix D shows some Louisiana severance tax exemptions. Appendix E lists state oil and gas severance tax rates. And, Appendix F shows oil and gas price, production, royalty, and severance tax historical data.