

Louisiana tax relief helps restore inactive-well production

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Several states in the US, including Louisiana, have enacted tax-relief provisions for restoring production from inactive wells. The success of these programs in stemming production decline and increasing oil and gas activity has varied, as illustrated by Louisiana's Severance Tax Relief Program (STRP) for inactive wells.

Louisiana created its program with Act 2 of the 1994 regular session of the Louisiana legislature. The legislature amended STRP in 1998 and again in 2002. The 2002 renewal reduced to 2 years the severance exemption period, making Louisiana's incentive program less competitive than most other oil and gas producing states.

A renewal attempt will occur during the 2005 regular session, during which proposed legislation seeks to return a 5-year severance tax exemption to the program.

This article describes the economic impact of Louisiana's incentive program and the factors contributing to recent

declines in production and activity. The program covers 53 of Louisiana's 64 parishes.

History

In 1994, the Louisiana legislature passed several drilling incentives, including a reduction in severance tax for reentry of inactive wells.¹ The definition of an inactive well varies among states, but a well that has not produced hydrocarbons for a specified time is generally considered inactive.

Louisiana's action followed that of Texas. Since then, 11 other states and at least 1 Canadian province have enacted such legislation.

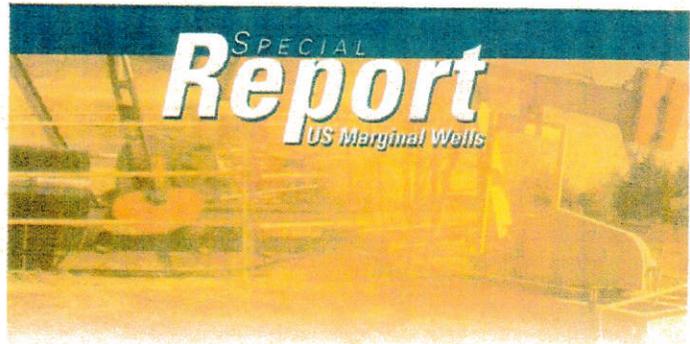
While Texas requires a well to be inactive for at least 3 years and provides a total reduction in severance for 10 years, Louisiana opted for a 2-year inactive period and a 5-year total reduc-

tion in severance. Both states included a sunset provision. Sunset provisions automatically repeal a law on a specific date unless the legislature reenacts it.

Louisiana based its modification of the Texas legislative act on two factors.

First, it considered a 2-year incentive period appropriate because more than 90% of Louisiana wells that were inactive for 2 years stayed inactive for 3 years or longer. Thus, the state had only a modest increased risk for losing some severance tax from wells that operators might reactivate between the second and third year of inactive status.

Secondly, it considered the 10-year severance tax suspension enacted by Texas as too generous politically because the economic return required by an operator was thought to be much less than 10 years. Louisiana, thus, expected that operators would not reenter



INACTIVE-WELL INCENTIVE PROGRAMS, 2004

Table 1

State	Status	Inactive period, years	Sunset	Tax reduction	Exemption period	Trigger price, \$/bbl
Arkansas	No change	1	No	All severance	10 years	No
California	No change	5	No	Property assessment	10 years	No
Florida	No change	2	6 years	All severance	4 years	No
Kansas	No change	3	July 1, 2006	All severance	10 years	No
Kentucky	No change	2	All severance	Open	No	No
Louisiana	No change	2	July 1, 2006	All severance	2 years	No
Montana	New incentive	4	No	All production taxes	12 months	No
New Mexico (oil)	No change	2	No	All severance	Open	24
North Dakota	Adjusted the incentive	2	No	All extraction taxes	10 years	37
Oklahoma	No change	2 and 1	July 1, 2006	1/3 of gross production	28 months	No
Texas	No change	2	Feb. 28, 2010	All severance	10 years	No
West Virginia	No change	5	No	All severance	10 years	No
Wyoming (oil)	No change	2	No	Reduced from 6% to 1.5%	5 years	25
Alberta (oil)	No change	Variable	No	No royalties on first 8,000 cu m	Variable	No

* Adjusted annually.

Note: Colorado, Michigan, and Utah have no incentive programs. Mississippi has allowed its incentive programs to expire.

TOTAL PRODUCTION FROM REENTERED WELLS

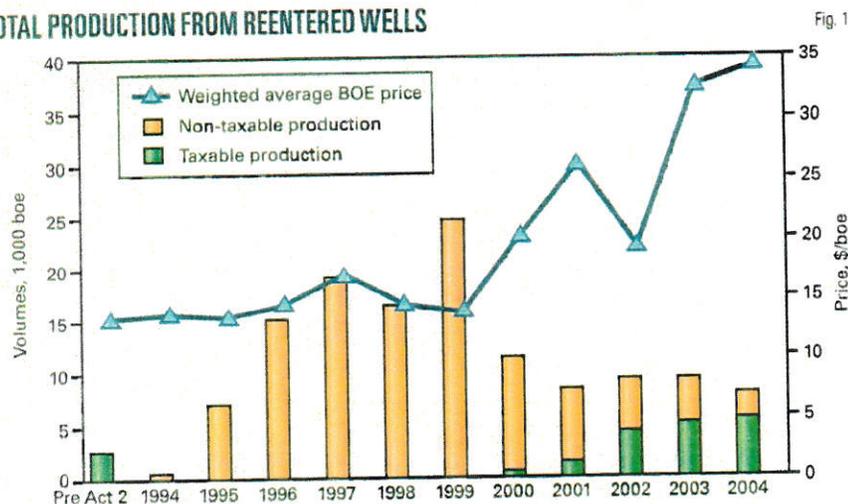


Fig. 1

many additional wells if the incentive were for more than 5 years.

Renewal attempt

Louisiana amended its STRP for inactive wells with Act 7 of the 1998 regular session and Act 74 of the 2002 regular session. During the 2002 renewal, it reduced to 2 years the period of severance exemption, making Louisiana's incentive period less than most other states (Table 1).

Although the incentive does not expire until mid 2006, a renewal attempt will occur during the 2005 regular session (House Bill 216 prefiled). This legislation is expected to return the program to a 5-year severance-tax exemption.

Fiscal impact

In Louisiana, tax bills, as well as other bills that fiscally impact the state, require a fiscal statement. These statements deal only with direct impacts. Input-output models that provide calculations of indirect impacts (such as jobs, dollars in the economy, and other estimated tax collections generated) provide useful anecdotal information and can help "sell" legislation, but the fiscal note is largely limited to direct dollars in or out.

The Louisiana inactive well program

has existed for more than a decade and thus provides an unusually long period to measure the success or failure of the program. Several other states have an equally long incentive history; yet, there remains a scarcity of analysis, although during the early period of the Texas program, the Railroad Commission of Texas disseminated some economic success stories.

The focus of this analysis is the direct fiscal impact to severance and state royalty collections, although comments on other factors are included.

Results

Fig. 1 depicts the production from reentered wells and includes both the production from newly reentered wells in a given year plus any combined production from reentered wells in previous years.

LOUISIANA REENTERED INACTIVE WELLS

Table 2

	1990-94	1994-2004
Production, million boe	2.7	12.0
Severance production, million boe	2.7	1.4
Royalty production, million boe	0.03	0.53
Severance collected, \$ million	3.2	3.2
State royalties, \$ million	0.3	10.7
Sum of direct revenue, \$ million	3.5	13.9

The period 1990-94 includes a calculated base production from reentered wells that was fully taxable and amounted to about 2.7 million boe/year. About 30,000 boe/year of this was in the form of state-owned royalty (Table 2).

To determine if reentered wells produce after the severance-tax exemption period, the analysis compared the base-period data to production, severance, and royalty data during 1994-2004.

Production from reentered wells subject to the severance tax began in 2000. By 2004, the total reentered well production subject to severance was 5.3 million boe or nearly twice the base-period production.

From 1994-2004, the production subject to severance was 1.4 million boe/year or about one-half the base period (Table 2). On a dollar basis, however, the annual average severance collected was almost the same 1994-2004 and the base period due to higher commodity prices in recent years (Table 2 and Fig. 1).

In terms of total production, the 1994-2004 period averaged 12.0 million boe/year in comparison with the base period of 2.7 million boe/year (Table 2). Reentered well production peaked in 1999 at 24.8 million boe, roughly nine times the base-period production, and has since declined to 7.9 million boe, still nearly three times the base-period level.

During the past 3 years, the number of successful reentries averaged 102, identical to the 1990-94 base period. Total production was substantially higher in 2002-04 due in part to the higher production per successful reentry.

The remaining production difference is due to some continued production from wells reentered during the 1995-99 boom period. Because the production half-life of these reentered wells is 1.8 years, Louisiana needs a considerable increase in activity to maintain current production levels.

State royalty production averaged 530,000 boe/year from 1994-2004 and 30,000 boe/year during the base period (Table 2). This is clearly where

the state made its money, and if one factors in the threefold price increase that occurred during the study period, state royalties increased from \$0.3 million/year to \$10.7 million/year.

Admittedly, the state royalty production during the base period appears low in comparison with the total state royalty to statewide production ratio. If this were used as a guide, one would have expected about 100,000 boe/year of state royalty production during the base period. Even so, at 530,000 boe/year, the incentive period produced an annual average state royalty production that was still more than five-times higher.

While state royalty production generally follows the trend of total reentered well production (Fig. 2), the percentage of royalty to total reentered production has increased during the period. Two factors have contributed to this trend.

First, the average royalty rate has increased by about 2% during the period, probably because of the more rapid depletion or expiration of older leases that paid lower royalty rates.

Secondly, the average percentage of successful reentries on state-owned leases compared with non-state-owned leases increased by about 7% during the incentive period, with a 5% increase since 2001.

During the base period, prior to tax reduction, production averaged 20.4 boe/day/well. Since mid 1994 through the end of 2004 the average increased to 108 boe/day/well.

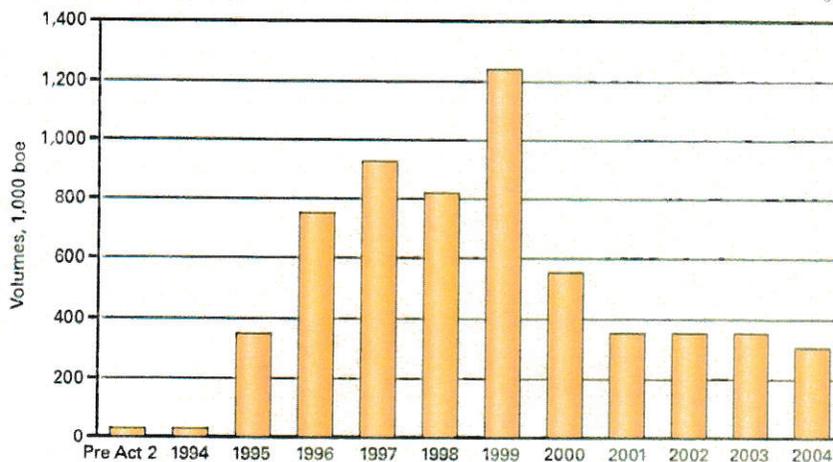
Factors affecting analysis

While the production and combined direct income to the state from severance and royalties from reentered wells were substantially greater during the incentive period in comparison with the base period, the recent trend of decreasing activity is troubling.

Scientists dealing with benchmarks often have the luxury of isolating variables and determining their individual impact. Unfortunately, we have no such

ROYALTY PRODUCTION FROM REENTERED WELLS

Fig. 2



luxury because the output represents the cumulative impact of several concurrent variables.

Rising oil and gas prices for example normally result in increased activity; yet activity and production decreased during several years of high commodity prices. Obviously, other factors must be more dominant.

In Louisiana, the severance tax on oil is nearly three times that on natural gas. Thus, the incentive of removing severance should favor oil producers. Statistical evidence supports this claim.

On an energy basis, total state production is weighted towards natural gas by about 70:30. Production from reentered wells, however, was 51:49 in favor of oil, showing that operators responded more favorably to the commodity with the greater incentive.

The boom in reentered well production from 1996-99 was greater than our previous prediction,² and a substantially larger percentage increase relative to Texas. A likely reason is that Louisiana was in the midst of a 3D-seismic boom, and many of the reentered wells were drilled with offsets into previously unknown fault blocks, resulting in a handful of "home runs."

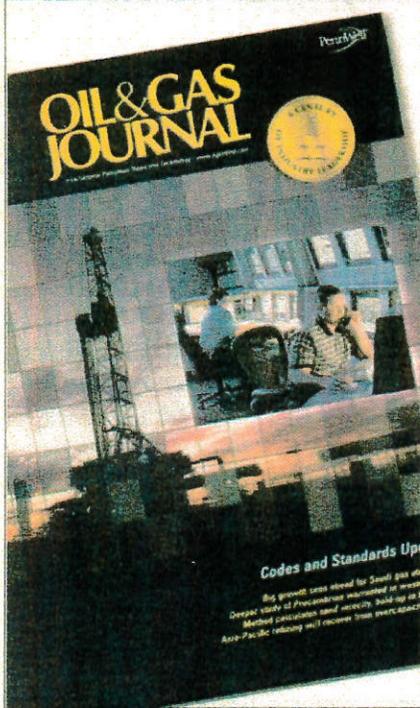
The timing of the incentives concurrent with technological advances in seismic interpretation and in multilateral drilling was probably a key factor

involved in the boom.

In summary, the decline in production and activity in Louisiana's reentered well program is difficult to assess, but the following factors have contributed to the decline since 1999:

- Adoption of reentered well incentives by many states resulting in a loss of a competitive advantage for Louisiana.
- Reduction in the incentive in Louisiana from 5 years to 2 years in 2002.
- Decline in the number of quality potential prospects. Companies have reentered about 1,500 wells successfully since 1994. Louisiana still has more than 10,000 potential candidates remaining, but some of the best prospects probably have already been reactivated.
- Recent increase in commodity prices has increased rental rates for rigs and an overall rig shortage. Several operators have commented to the authors that they are waiting for rigs or, because of costs, they have moved rigs to lower-risk prospects.
- Downturn in reentered well activity generally coincides with the downturn in all oil and gas activity, especially in the southern part of the state.
- Issues and delays with permits that have plagued many oil and gas projects are not a major issue with reentered wells. In fact, in the environmentally sensitive wetlands of South Louisiana,

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a reentered well has a considerable environmental impact advantage over a new well.

- Impact of "legacy-site" lawsuits is difficult to assess. The increase in state royalty production as a percent of the total reentered well production provides anecdotal support because legacy-site lawsuits do not occur on state-owned properties.

Acknowledgments

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