

June 18, 2012

Williams Tower 2800 Post Oak Boulevard Suite 4200 Houston, TX 77056 Tel. 713.629.0090 Fax 713.629.0227

www.ryanco.com

To: James Saxton, Esq. – Friday, Eldredge, & Clark, LLP

From: William M. Samuels – Ryan, LLC

Lee C. Henagan - Ryan, LLC

Re: Executive Summary – Multi-State Severance Tax Comparative Study

INTRODUCTION

Friday, Eldredge, & Clark, LLP ("FEC") engaged Ryan, LLC ("Ryan") on March 12, 2012 to perform a comparative analysis of severance taxes in Arkansas, Louisiana, Oklahoma, and Texas. For Arkansas we were to assume that the Natural Gas Severance Tax of 2012, ("NGSTA") was applicable for Arkansas and for the other states we were to use the current applicable tax rates, incentives and deductions. Specifically, the analysis reflects economic modeling focusing on both incentives wells (high cost gas, horizontal wells) and conventional wells in the jurisdictions noted. The models were created using both historical and projected data (i.e. production volumes, commodity pricing, and when applicable, drilling & completion costs and operating expenses).

It was our intent to show how the severance tax burden compared between the jurisdictions for both a typical natural gas incentive well and a typical natural gas conventional well on a percentage of taxes paid to gross revenues generated. We selected the time period 2009 through 2013 to focus on, with historic data being available for the earlier periods (2009, 2010, 2011 (partial)), and projected data being used for 2012 and 2013. Note that the incentives selected have state-wide application as qualification is dependent upon the characteristics of the individual well. In many cases, these incentives have heavy application to the various shale plays in each state (Barnett, Eagle-Ford, Fayetteville, Haynesville, and Woodford).

CONCLUSIONS

Assuming the NGSTA was in effect for Arkansas for the time period indicated, the Arkansas high cost gas well model reflected a tax burden equal to 7% of gross revenues generated. When compared to the other states' incentive wells, Arkansas had a tax burden that was significantly greater. The respective severance tax burdens were: Oklahoma horizontal well, (.41%), Louisiana horizontal well, (.93%), and the Texas high cost gas well, (3.26%).

Under the same assumptions, an analysis of the severance tax burden applicable to conventional production reveals different results. Texas comes in with the highest severance tax rate at 7.2% of value (after allowing the marketing cost deduction), followed by Arkansas at 7%, Oklahoma at 6.72% (again allowing for a marketing cost deduction), and finally Louisiana, with a volumetric tax rate that converts to 6.26% of value for the period analyzed, with no marketing cost deduction.

The calculation for Arkansas wells under NGSTA is simply a flat tax assessed at a rate of 7% of gross revenues. There are no applicable incentives or deductions of any type allowed. This is in stark contrast to that the tax codes provided in Texas, Louisiana and Oklahoma. Both Texas and Oklahoma allow for gross revenues to be reduced by allowable deductions (Louisiana does not), and further all three provide for specific incentives on qualifying production. Please refer to the Summary Matrix to review the various severance tax burden comparisons.

DISCUSSION

We selected the most widely utilized incentives in each of the four (4) states indicated. Each incentive offers the producer a material reduction in severance taxes on qualified wells. On a comparative basis, note that Texas has a high cost gas incentive while Louisiana and Oklahoma do not. We therefore selected the horizontal well incentives in these states for modeling purposes. We selected the time period 2009 through 2013 as this period gave us enough time to see what effect the decline curve would have on the payout calculation, and ultimately on the credit total. The assumptions used, as well as the sources of data, are provided in the next section. We have also included tax effect, on a state by state basis, for both the incentive well and a conventionally producing well.

SUMMARY OF METHODOLOGY AND ASSUMPTIONS

Average Production

Arkansas High Cost Gas Wells

Under the NGSTA, tax is assessed on gross revenues without any incentive or deduction applicable. Although the tax rate would be the same under the NGSTA, for comparative purposes, it was necessary to distinguish between production coming from a high cost gas well, as opposed to production coming from a conventional well. Therefore, we sourced data applicable to a previously qualifying high cost gas well as follows:

- Ryan obtained a complete data download from the Arkansas Oil and Gas Commission containing statewide production by Pru ID for all periods currently reported.
- Ryan also obtained a copy of the Arkansas Severance Tax Well List from the Arkansas Oil and Gas Commission, current through March 2012. This list identifies all conventional and high cost gas wells in the state.
- Subsequently, Ryan imported all data into a MS Access database and ran a series of queries to update information such as permit number, initial date of production, and various other pertinent fields.
- Ryan queried for high cost gas wells with initial production dates equal to January 2009. These criteria returned a sample population of 89 wells. Ryan reviewed the sample population and excluded 4 wells with large blocks of missing production to arrive at the final sample population of 85 wells. Additionally, production months with no gas production (e.g. shut-in) were removed from the sample so as to not dilute the monthly average.
- Ryan sorted the population by production month order and obtained the average gas production for each month. Beginning with production month number 37 (January 2012), Ryan was required to estimate average production due to a lack of actual data. In order to accomplish this, Ryan graphed the average production from January 2009 through December 2011 and performed an exponential trend analysis to obtain projected average production through production month number 60 (December 2013). The R-squared value of the exponential trend analysis for production months 1 through 36 is .927.

Arkansas Conventional Wells

• Ryan obtained a complete data download from the Arkansas Oil and Gas Commission containing statewide production by Pru ID for all periods currently reported.

- Ryan also obtained a copy of the Arkansas Severance Tax Well List, current through March 2012. This list identifies all conventional and high cost gas wells in the state.
- Subsequently, Ryan imported all data into a MS Access database and ran a series of queries to update information such as permit number, initial date of production, and various other pertinent fields.
- Ryan queried for conventional wells with initial production dates equal to January 2009; however, this returned a very small sample population. In order to increase the sample population to a more representative size, Ryan increased the initial production date parameters to include all wells with initial production dates of January 2009 through July 2009. These criteria returned a sample population of 27 wells. In order to maintain the integrity of the decline curve model, all wells were adjusted to peg their 1st production month to the January 2009 model baseline. I.e., for wells with initial production months not equal to January 2009, Ryan set the 1st month of production equal to "1" and renumbered all subsequent months. Additionally, production months with no gas production (e.g. shut-in) were removed from the sample so as to not dilute the monthly average.
- Ryan sorted the population by production month order and obtained the average gas production for each month. Beginning with production month number 32 (August 2011), the population sample significantly decreased due to a lack of actual data (this phenomenon was accelerated relative to the HCG model because of the necessity to include wells with initial production dates later than January 2009). In order to compensate for the effect of the small sample population in months 32-37, and project average production through months 37-60 (no actual data available), Ryan graphed the average production from January 2009 through July 2011 and performed an exponential trend analysis to obtain projected average production through production month number 60 (December 2013). The R-squared value of the exponential trend analysis for production months 1 through 31 is .7979.

Louisiana Horizontal Wells

- Ryan obtained a historical production data download of all Haynesville Shale wells from the Louisiana Department of Natural Resources ("LDNR"). Ryan also downloaded a list of all approved horizontal wells from LDNR.
- Ryan next ran queries to identify those approved horizontal wells producing from the Haynesville Shale and identified the first reported month with gas production. The query results were exported to Excel and resorted by the minimum production month. Because Louisiana production is reported to LDNR by LUW as opposed to serial number, Ryan began reviewing those LUWs with initial reported production equal to January 2009 in order to identify the number of serial numbers reported under each LUW. Ryan created a list of LUWs with single wells reported on the LUW in order to most accurately sample the average production from a typical Haynesville well.

- In order to achieve a statistically significant sample population, Ryan reviewed LUWs with initial production ranging from January through March 2009 to identify LUWs with only one associated serial number. This methodology results in a sample population of 40 wells. As with Arkansas, and the other states yet to be discussed, we removed outlier leases where large blocks of periods demonstrated no production. We also removed production months with no gas production (e.g. shut-in) so as to not dilute the monthly average. The final sample population for the Louisiana Haynesville well model was 36 unique wells.
- Finally, as with Arkansas conventional wells, in order to maintain the integrity of the decline curve model, all wells were adjusted to peg their 1st production month to the January 2009 model baseline (i.e. for wells with initial production months not equal to January 2009, Ryan set the 1st month of production equal to "1" and renumbered all subsequent months). Ryan sorted the population by production month order and obtained the average gas production for each month. Beginning with production month number 37 (January 2012), Ryan was required to estimate average production due to a lack of actual data. In order to accomplish this, Ryan graphed the average production from January 2009 through December 2011 and performed an exponential trend analysis to obtain projected average production through production month number 60 (December 2013). The R-squared value of the exponential trend analysis for production months 1 through 36 is .9264.

Louisiana Conventional Wells

- Ryan was not able to obtain a statewide production data download from LDNR; consequently, sampling was used in determining the average monthly production from conventional wells in Louisiana.
- In order to better identify those wells with initial production beginning on or around January 2009, Ryan obtained a report of all wells permitted in the state of Louisiana between August 1, 2008 and December 31, 2008. Ryan imported this set of wells into MS Access and removed all wells not listed as actively producing, per LDNR. Additionally, all certified horizontal, deep, and inactive wells were removed from this list. Finally, all wells producing from fields included in the Haynesville Shale data download were removed from the potential conventional well list so as to not include any uncertified wells producing from the Haynesville Shale as these wells do not accurately depict a "conventional" well.
- The remaining 96 wells were reviewed on LDNR's website to determine their month of first production, as well as the associated LUW number and how many wells were consolidating production on the LUW. After this review, Ryan identified approximately 20 unique serial numbers with initial production beginning around January 2009. Similar to the other models with wells whose production began during a period other than

January 2009, we adjusted the production months to reflect initial production beginning in January 2009.

• The final sample of Louisiana conventional wells included a sample population of 19 wells. Due to limited sample size, beginning with the 36th production month (December 2011) we began projecting average production volumes using the same exponential trend analysis methodology previously discussed in the Arkansas and Haynesville models. The R-squared value of the exponential trend analysis for production months 1 through 35 is .7246.

Oklahoma Horizontal Wells

- Ryan downloaded a complete Oklahoma gas well data set from Lasser, Inc. Ryan also downloaded a list of wells qualifying for a reduced tax rate as determined by the Oklahoma Tax Commission as of April 6, 2012.
- Ryan queried for gas wells listed by the OTC as "horizontally drilled", with a first production date of January or February 2009.
- Similar to the other models with wells whose production began during a period other than January 2009, we adjusted the production months to reflect initial production beginning in January 2009.
- The total sample population included 74 horizontally drilled gas wells. Due to limited sample size, beginning with the 35th production month (November 2011) we began projecting average production volumes using the same exponential trend analysis methodology previously discussed in the Arkansas and Haynesville models. The R-squared value of the exponential trend analysis for production months 1 through 34 is .9158.

Oklahoma Conventional Wells

- In order to determine the list of Oklahoma conventional wells, Ryan identified all wells that were not listed in the Oklahoma Tax Commission list of wells approved for a reduced tax rate (i.e. those not listed as horizontally drilled or deep).
- Ryan set additional criteria to identify only those conventional wells with initial production during January 2009. These criteria resulted in a conventional well sample population of 131 wells; however, after removing wells with large blocks of missing production, the final sample population was 125 wells.
- Beginning with the 36th production month (December 2011), we began projecting average production volumes using the same exponential trend analysis methodology previously discussed in the Arkansas and Haynesville models. The R-squared value of the exponential trend analysis for production months 1 through 34 is .4528.

Texas High Cost Gas Wells

- Ryan obtained a list of all certified Texas high cost gas wells from the Texas Comptroller via open records request. Ryan imported this data into MS Access and ran queries to identify all certified lease with a beginning date equal to January 2009. The result of this query identified 609 such wells.
- Ryan used a random number function in MS Excel to randomly select 50 high cost gas wells for inclusion in the model.
- Historical production records for each well were obtained through the Texas Railroad Commission's Production Data Query. Because we had production data through the 38th production month (February 2012), the average production figures in the model represent actual production from the sample wells. Beginning with production month 39 (March 2012), we began projecting average production volumes using the same exponential trend analysis methodology previously discussed relative to Arkansas, Louisiana, and Oklahoma. The R-squared value of the exponential trend analysis for production months 1 through 38 is .9101.

Texas Conventional Wells

- In order to create a list of conventional Texas natural gas wells, Ryan cross-referenced all wells approved by the Texas Comptroller as high cost gas, inactive gas wells, and low producing gas wells against a list of all Texas natural gas wells obtained through Lasser, Inc. All wells that were not previously certified by the Comptroller were classified as conventional wells by Ryan and were subject to inclusion in our sample of conventional wells. Ryan identified 81 such wells and used a random number function in MS Excel to identify 51 wells for our sample.
- Historical production records for each well were obtained through the Texas Railroad Commission's Production Data Query. Because we had production data through the 38th production month (February 2012), the average production figures in the model represent actual production from the sample wells. Beginning with production month 39 (March 2012), we began projecting average production volumes using the same exponential trend analysis methodology previously discussed relative to Arkansas, Louisiana, and Oklahoma. The R-squared value of the exponential trend analysis for production months 1 through 38 is .943.

Commodity Pricing

Arkansas

- Arkansas natural gas prices were obtained from the Energy Information Agency ("EIA"). 1
- Because the EIA does not list wellhead price on a monthly basis, we used annual average wellhead price. Additionally, as of April 26, 2012, the EIA had not yet released the average annual wellhead price in Arkansas for 2011. Consequently, we used actual average prices for 2009 and 2010 production periods, but used an estimate of \$3.50 per mcf for 2011 and \$2.50 per mcf for production years 2012 and 2013. For periods after 2013 (60 months), we increased our estimate to \$3.00 per mcf. This was necessary to run comparisons involving high cost gas tax burdens.

Louisiana

- Louisiana natural gas prices were obtained from the LDNRs' Facts Annual Table 19.²
- Ryan referenced the Henry Hub Cash Spot price for all periods through 2011. For production years 2012 and 2013, Ryan estimated the price per mcf at \$2.50; however, because Louisiana's severance tax is applied volumetrically, price has no implications on severance tax due.

Oklahoma

- Oklahoma natural gas prices were obtained from the EIA.³
- Because the EIA does not list wellhead price on a monthly basis, we used annual average wellhead price. Additionally, as of April 26, 2012, the EIA had not yet released the average annual wellhead price in Oklahoma for 2011. Consequently, we used actual average prices for 2009 and 2010 production periods, but used an estimate of \$3.50 per mcf for 2011 and \$2.50 per mcf for production years 2012 and 2013.

Texas

1

¹ Energy Information Agency (http://www.eia.gov/dnav/ng/ng_pri_sum_dcu_SAR_a.htm) Last visited April 26, 2012

² Louisiana Department of Natural Resources (http://dnr.louisiana.gov/assets/TAD/data/facts_and_figures/table19.htm) Last visited April 26, 2012.

³ Energy Information Agency (http://www.eia.gov/dnav/ng/ng_pri_sum_dcu_SOK_a.htm) Last visited April 26, 2012.

- Texas natural gas prices were obtained from the Texas Comptroller's certified average price of gas.⁴
- Ryan used actual posted prices through the 38th production month (February 2012). For the remaining periods in 2012 and 2013, Ryan assumed a natural gas price of \$2.50 per mcf. For periods after 2013 (60 months), we increased our estimate to \$3.00 per mcf. This was necessary to reflect high cost gas credit projections.

Drilling and Completion Costs (D&C)

Arkansas High Cost Gas Wells

• D&C costs have no bearing on a previously qualifying high cost gas well that will be taxed at the full rate under the NGSTA.

Arkansas Conventional Wells

• Drilling and completion costs were not relevant to the conventional well model and were not considered.

Louisiana Horizontal Wells

- Ryan was not able to identify a publicly available report or publication indicating the average drilling and completion costs of horizontal wells in Louisiana during the 2009 production year.
- In order to determine the average drilling and completion costs of horizontal gas wells during 2009, Ryan used the Severance Tax Relief Report on the Louisiana Sonris website to identify all approved Louisiana horizontal wells. We imported this list of wells into MS Excel and used a random number function to randomly order the wells.
- Ryan used the Oracle J-Initiator Severance Tax Relief Report on LDNR's website to review the actual drilling and completion costs approved by LDNR and identified those wells with initial production during 2009.
- Ryan identified a random sample of 55 horizontal wells with initial production in 2009; this sample formed the baseline for determining average horizontal well drilling and completion costs in Louisiana.
- Ryan plotted the approved drilling and completion costs to identify any outliers to be removed from the sample population. Ryan identified 2 outliers and subsequently removed those wells from the sample.

_

⁴ Texas Comptroller

http://www.window.state.tx.ushttp://www.window.state.tx.us/taxinfo/nat_gas/low_prod_well.html/taxinfo/nat_gas/low_prod_well.html) Last visited April 26, 2012.

• The final sample population totaled 53 wells, with an average drilling and completion cost of \$9,524,653.

Louisiana Conventional Wells

• Drilling and completion costs were not relevant to the conventional well model and were not considered.

Oklahoma Horizontal Wells

- For the following reasons, drilling and completion costs were not considered in the Oklahoma horizontal well model.
- Previously, Oklahoma law granted an exemption for all horizontal wells for the first forty-eight (48) months of production, or until project payback, whichever occurred first.
- During the 2010 legislative session, Oklahoma passed House Bill 2432 which dealt with a host of issues, but also created a fundamental change in the application of the horizontal well exemption. However, House Bill 2432 contained a drafting error which inadvertently prohibited operators from claiming the horizontal well incentive under certain circumstances.
- Subsequently, the Oklahoma legislature passed Senate Bill 885 during the 2011 legislative session to address errors created by House Bill 2432 (2010).
- After the enactment of Senate Bill 885 (2011), the horizontal well incentive is applied as follows:
 - "Except as otherwise provided in this section, the production of oil, gas or oil and gas from a horizontally drilled well producing prior to July 1, 2011, which production commenced after July 1, 2002, shall be exempt from the gross production tax levied pursuant to subsection B of this section from the project beginning date until project payback is achieved but not to exceed a period of forty-eight (48) months commencing with the month of initial production from the horizontally drilled well."
 - o "The provisions of this paragraph shall only apply to wells qualifying for the exemption provided under this subsection prior to July 1, 2011. The production of oil, gas or oil and gas on or after July 1, 2011, from these qualifying wells shall be taxed at a rate of one percent (1%) until the expiration of forty-eight (48) months commencing with the month of initial production."
- Essentially, production from a horizontal well prior to July 1, 2011 is exempt from severance tax. On July 1, 2011, if the forty-eighth (48) month of production or project payback has not occurred, the exemption converts to a 1% reduced tax rate for the

⁵ Okla. Stat. tit. 68 § 1001.E.1 (2011)

⁶ Okla. Stat. tit. 68 § 1001.E.4 (2011)

remainder of the first forty-eight (48) months of production. No consideration of payback is required.

- Under our model scenario, project payback would have to occur within the first thirty (30) months of production (January 2009 through June 2011) in order for project payback to have any effect on the incentive, and by extension, our model.
- After carefully considering the average production and pricing assumptions presented in the model, it was determined that drilling and completions costs (i.e. project payback) was not a material variable.

Oklahoma Conventional Wells

• Drilling and completion costs were not relevant to the conventional well model and were not considered.

Texas High Cost Gas Wells

- Ryan obtained actual median drilling and completion costs for Texas high cost gas wells completed in 2009, as published by the Texas Comptroller of Public Accounts.
- According to the Comptroller, the median drilling and completion costs for a high cost gas well in 2009 was \$2,460,638.
- Unlike Arkansas⁷ (under current law), Louisiana, and Oklahoma⁸, which limit the incentive recovery term based on a payout calculation where working interest revenue equals the cost of drilling and completing the well, the state of Texas imposes a recovery term limit on the high cost gas incentive equal to ten years from the date of first production or when the cumulative tax credits from a qualifying well equal fifty (50) percent of the drilling and completion costs, whichever occurs first.
- Texas statute clarifies the limitation on the incentive term as follows:

(c) High-cost gas as defined in Subsection (a)(2)(A) produced from a well that is spudded or completed after August 31, 1996, is entitled to a reduction of the tax imposed by this chapter for the first 120 consecutive calendar months beginning on the first day of production, or until the cumulative value of the tax reduction equals 50 percent of the drilling and completion costs incurred for the well, whichever occurs first. The

⁷ Under existing Arkansas law, there is a separate tax levy for high-cost gas production that is equal to 1 ½ % of value (after certain deductions). The reduced rate applies to the first 36 months of production. If payout is not achieved during this time period, the separate levy continues to apply for an additional twelve (12) months (for a total of forty-eight (48) months), or until payout occurs, whichever occurs first, at which time the tax levy returns to 5%.

⁸ Oklahoma statute does not currently impose a payout calculation; however, previous versions of statute did impose incentive term limitations based on payout. Please refer to the Oklahoma Horizontal Well portion of the <u>Drilling</u> <u>and Completion Costs (D&C)</u> section for further discussion.

amount of tax reduction shall be computed by subtracting from the tax rate imposed by Section 201.052 the product of that tax rate times the ratio of drilling and completion costs incurred for the well to twice the median drilling and completion costs for high-cost wells as defined in Subsection (a)(2)(A) spudded or completed during the previous state fiscal year, except that the effective rate of tax may not be reduced below zero.⁹

• As an illustration, the equation used to calculate the Texas high cost gas reduced tax rate is:

0.075 - [(0.075 * (approved drilling and completion cost / (2 * median cost for wells completed in the prior fiscal year))

- As further illustration of application of the limit on incentive recovery, the Texas HCG Model reflects that total tax credits taken over the life of the incentive will never equal 50% of drilling & completion costs
 - Over the first 60 months of the incentive, tax credits total \$115,734.39. This amount reduces drilling and completion costs to \$2,344,903.61, or 95.30% of the original total of \$2,460,638. Only 9.4% of the maximum allowable tax credit has been claimed at this point.
 - Over the full 10 year incentive limit, tax credits total \$124,728.30, which is 10.14% of the maximum allowable tax credit allowable under this incentive.
 - O Based on the Texas HCG model, it is far more likely that the incentive will run the full 10 year term rather than be limited to the 50% cap as calculated on drilling and completion costs. The applicable reduced tax rate as calculated above, coupled to the production decline curve, indicate that in most cases, the 50% drilling & completion cost limitation will not be a factor in determining the tax credits available under this incentive.

Texas Conventional Wells

• Drilling and completion costs were not relevant to the conventional well model and were not considered.

⁹ Tex. Tax Code Ann. § 201.057(c) (2011)

Lease Operating Expenses

Arkansas High Cost Gas Wells

• Current Arkansas statute defines "payout" as:

The date the cumulative working interest revenues from a high-cost gas well equal the sum of:

- A) All drilling and completion costs incurred in connection with the high-cost gas well; and
- B) All operating costs incurred or accrued in connection with the operation of the high-cost gas well during the period of cost recovery;¹⁰
- Under our projected model, the average drilling and completion cost for an Arkansas high cost gas well is \$3,163,488.
- Estimated revenue for our model high cost gas well through the first thirty-six (36) months of production is \$2,865,652. Arkansas statute provides that if payout has not been achieved at the end of the first thirty-six (36) production months, the incentive can be extended for an additional twelve (12) months, provided payout does not occur first.
- At the end of the forty-eighth (48) month of production, the estimated revenue under our model is \$3,131,285, which is still below the average drilling and completion cost presented in the model.
- In the statutory calculation of payout, the inclusion of lease operating expenses has the effect of extending the time required to achieve payout. Because the model's revenue never exceeds the model's drilling and completion cost within the time limitations set forth by statute, we did not include a calculation of lease operating expenses in the model. This deliberate exclusion of operating expenses was designed to maximize simplicity, while still conforming to statutory requirements.

Arkansas Conventional Wells

• Consideration of lease operating expenses is not material to the conventional well model.

¹⁰ Ark. Code Ann. § 26-58-101(14) (2011)

Louisiana Horizontal Wells

- The Louisiana horizontal well exemption provides for a twenty-four (24) month exemption from severance tax, or until the well reaches payout, whichever occurs first.
- Louisiana Administrative Code provides that "payout" occurs when:

Gross revenue from the well, less royalties and operating costs directly attributable to the well, equals the well cost as approved by the Office of Conservation. Operating costs are limited to those costs directly attributable to the operation of the exempt well, such as direct materials, supplies, fuel, direct labor, contract labor or services, repairs, maintenance, property taxes, insurance, depreciation, and any other costs that can be directly attributed to the operation of the well. Operating costs do not include any costs that were included in the well cost approved by the Office of Conservation.¹¹

- The estimated revenue from the first twenty-four (24) months of production under the Louisiana horizontal well model is \$7,767,940.
- The average drilling and completion cost for horizontal wells in Louisiana, as presented in the model, is \$9,524,653.
- Similar to Arkansas, lease operating expenses and royalties paid have the effect of extending the time to achieve payout. Because the estimated twenty-four (24) month revenue under our model does not exceed the average drilling and completion costs, we did not include calculations of lease operating expenses in the model.

Louisiana Conventional Wells

• Consideration of lease operating expenses is not material to the conventional well model.

Oklahoma Horizontal Wells

• In addition to the considerations previously discussed in the Oklahoma portion of the *Drilling and Completion Costs* (*D&C*) section, Oklahoma statute provides that "For purposes of subsection D of this section and this subsection, project payback shall be determined as of the date of completion of the well and shall not include any expenses beyond the completion date of the well, and subject to the approval of the Tax Commission." ¹²

¹¹ La. Admin. Code tit. 61, § 2903 (2011)

¹² Okla. Stat. tit. 68 §1001.E.1 (2011)

• Consequently, lease operating expenses are not an allowable portion of the Oklahoma horizontal well model and were not included.

Oklahoma Conventional Wells

• Consideration of lease operating expenses is not material to the conventional well model.

Texas High Cost Gas Wells

• Lease operating expenses are not applicable to the Texas high cost gas well incentive.

Texas Conventional Wells

• Consideration of lease operating expenses is not material to the conventional well model.