

VIA EMAIL: RRCconference@rrc.texas.gov

Railroad Commission of Texas
Chairman Wayne Christian
Commissioner Christi Craddick
Commissioner Ryan Sitton
1701 North Congress Avenue
Austin, Texas 78711

RE: DOCKET NO. OG-20-00003167; IN RE: MOTION FOR COMMISSION CALLED HEARING ON THE VERIFIED COMPLAINT OF PIONEER NATURAL RESOURCES U.S.A. INC. AND PARSLEY ENERGY INC. TO DETERMINE REASONABLE MARKET DEMAND FOR OIL IN THE STATE OF TEXAS

This document is intended to accompany oral testimony before the Commission on April 14, 2020.

Prorationing Will Reduce Texas State Revenue

Presented to
Texas Railroad Commission

Prepared by James LeBas
April 8, 2020

About the Presenter

James LeBas is a consultant on Texas fiscal matters. Clients include the Texas Oil & Gas Association and other Texas businesses and associations.

He served six years as the state's chief revenue estimator for Texas Comptroller Carole Keeton Rylander, and preceding that, performed fiscal analysis work for Governors Richards and Bush and for Texas Comptroller Bob Bullock.

LeBas served the state as director of financial analysis for the Texas Tax Reform Commission under Governor Perry, during which time he was also chief financial officer for the Texas Water Development Board. He received Bachelor's and Master's degrees in Data Processing and Analysis and in Finance, respectively, in 1983 and 1985.

Prorating Will Reduce Texas State Revenue

Summary

The Texas constitution provides for one estimator of state revenue, and that is the Texas Comptroller. This report is not intended nor would it be acceptable as a substitute for the judgment of the Texas Comptroller. The information presented herein represents a plausible revenue scenario of a reduction in oil production if mandated by the state to a level below what the free market would otherwise provide.

A mandatory reduction, or prorating, of Texas oil that resulted in a 10% cut in production will cause a reduction in state revenue of at least \$236 million per year during which it was in place under current conditions. Assuming a linear relationship, a 20% prorating will cut state revenue by at least \$472 million.

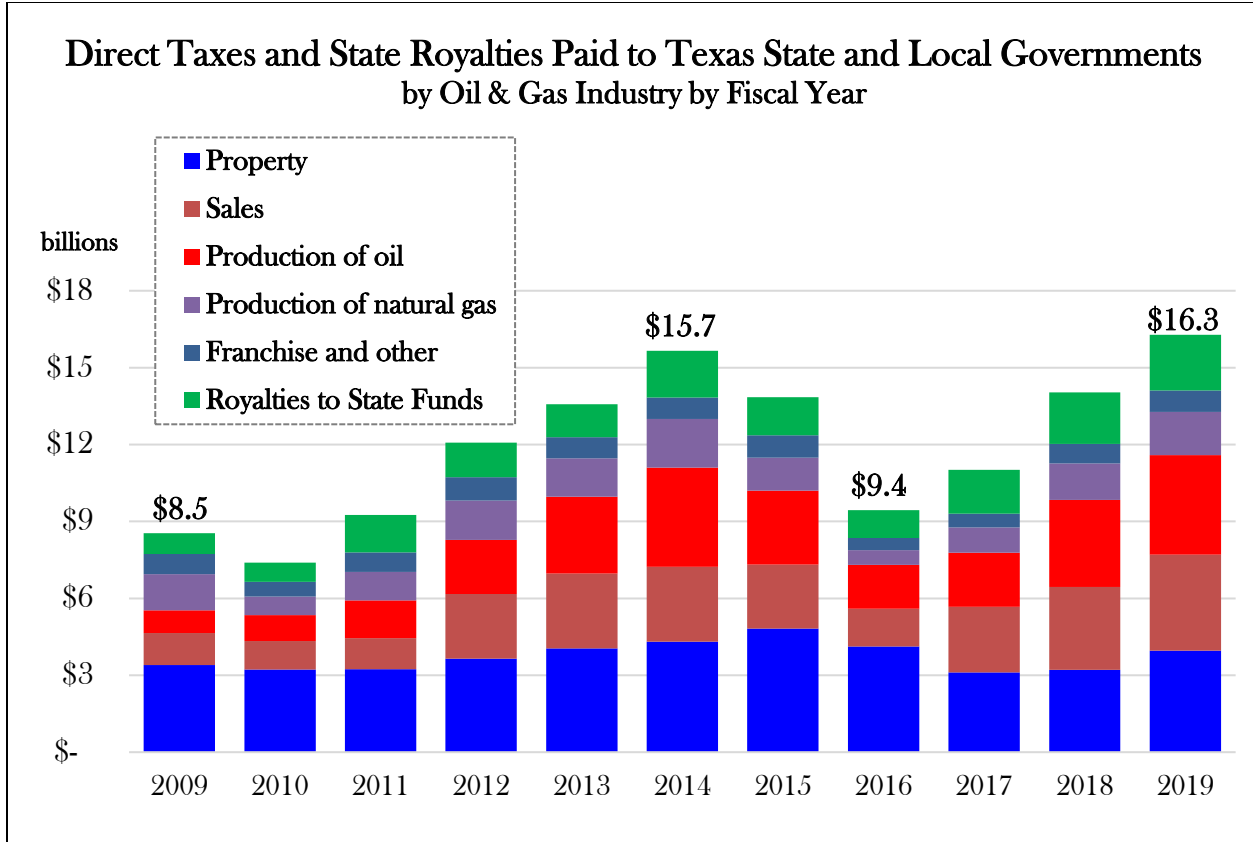
A full measure of the cost to the state would be considerably larger, as it would encompass the losses to school tax bases that the state would be required to pay for through the Foundation School Program, lost income and the resulting loss of taxable purchases by Texas employees and royalty owners, the loss of state sales tax paid on oil well purchases, the loss of revenue from the Oil Well Servicing Gross Receipts Tax, and reductions in the myriad of other taxes and fees paid by the industry.

Losses would also accrue to Texas' local governments who receive sales and property taxes from industry activity.

Taxes Paid by the Texas Oil and Natural Gas Industry

The major forms of tax revenue imposed by Texas state and local governments tend to fall heavily on the oil and natural gas industry, owing largely to the age of the Texas tax structure. For example, the oil production ("severance") tax was first imposed in 1905, the business franchise tax in 1907, the gas utility pipeline tax in 1920, the natural gas production tax in 1936, the oil well servicing tax in 1941, and the sales tax in 1961. Property tax has been imposed in Texas even before statehood. Each new tax has been layered on top of the last, making for a thick tax sandwich through which the industry must bite to comply with law.

Because of the stacking effect of the tax sandwich and because of the successful growth of the industry in Texas over the past 120 years, state and local government in Texas have become dependent on the oil and natural gas industry to provide a substantial amount of revenue. The cyclical nature of the industry causes large fluctuations in the amount of that revenue, but in no year is it insubstantial. In state fiscal year 2019, ended August 31, 2019, the industry paid, *directly*, an all-time high in state and local taxes and state royalties of \$16.3 billion. This was 72% higher than just three years prior (2016), which in turn was 40% lower than two years before that (2014).



The oil and natural gas industry, for the purposes of this analysis, is made up of 14 NAICS sectors that comprise upstream, midstream, and downstream activities. The industry employed, directly, over 428,000 Texans during state fiscal year 2019. There are also an estimated 600,000 individual Texas royalty owners.¹ Of the 14 business sectors, upstream activities provided the most jobs and paid the most in taxes and state royalties. Upstream activities - mainly oil and natural gas production itself - are subject to peculiar charges that are not generally imposed on Texas businesses. The taxes on the mere production of hydrocarbons are the best example, being without counterpart across the entire Texas tax structure. Upstream oil and gas activities are also the sole source of fresh capital - in the form of royalties - to the state's Permanent University Fund and Permanent School Fund.

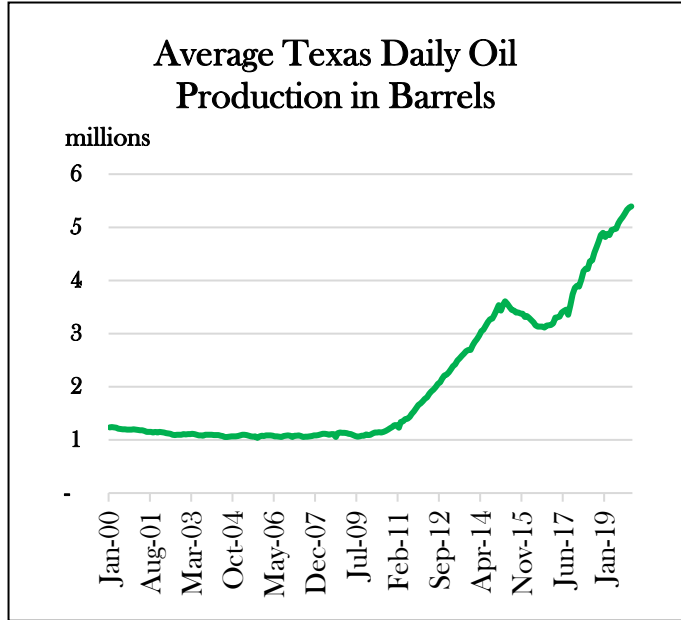
Of the numerous state revenue sources borne by the industry, severance taxes and the royalties paid on state minerals are the most directly and immediately responsive to changes in production. Other taxes, especially local property taxes imposed on producing mineral properties and sales taxes paid on purchases made for drilling and completing wells, are roughly comparable in size to the sum of severance taxes and royalties, but their response may lag, or even precede, changes in production. For that reason, this analysis focuses only on severance taxes and royalties to state funds.

¹ SOURCE: Texas Royalty Council.

Texas Oil-Sourced Revenues

The ingenuity and success of Texas oil producers is now legend. Through advanced technology developed largely in Texas, producers quintupled production from 1 million barrels per day as recently as 2009 to 5 million a decade later.

However, it has not been an entirely smooth trajectory. In response to the price declines beginning June 2014, Texas oil production fell almost as steadily as it had risen. The average WTI spot price from April 2011 through June 2014 had been \$97. From March 2015 through August 2017, it was \$47. **The resulting decline in production was 14%.** Price had fallen in half, similar to what has happened in 2020. For this analysis, a 14% reduction in Texas production – and for the taxes and state royalties based thereon – is therefore assumed for this analysis to occur for the reduction in price.



Assuming this market-driven reduction in production will occur, naturally occurring reductions in state revenue will follow, based both on production and the lower price that caused it.

Market-Driven Reductions in Selected State Oil Revenues*	
	\$ millions
Base Fiscal Year: 2019 Actual	
Oil Production Tax	\$ 3,887
Oil Royalties to State Funds	<u>\$ 1,599</u>
Total, Fiscal 2019	\$ 5,486
Annual revenue (loss) if price falls 50%:	\$ (2,743)
Additional annual (loss) if production falls 14%:	<u>\$ (384)</u>
Total Annual Market-Driven Revenue (Loss)	\$ (3,127)
Remaining Annual Oil Revenues:	\$ 2,359
* This is an example only. It is not an official estimate of state revenue.	

Taxes and royalties based on oil production are large and important in Texas but are comparatively volatile. The table above depicts a falloff scenario of \$3.2 billion driven by market forces alone. Under that circumstance, using fiscal year 2019 collections as a baseline, the state will still be receiving an estimated \$2.3 billion annually in oil revenues. It is from that level that a policy-generated reduction from prorating would be taken. If prorating reduced oil production by 10%, the loss of revenue will be 10% of \$2.3 billion, or \$236 million per year. At 20% prorating, the loss will be \$472 million per year.

Prorating-Driven Reductions in Selected State Oil Revenues *

	\$ millions
Annual Oil Revenues After Market-Driven Reductions	
Oil Production Tax	\$ 1,671
Oil Royalties to State Funds	<u>\$ 688</u>
Total	\$ 2,359
Annual revenue (loss) due if prorating reduces production 10%:	\$ 236
Annual revenue (loss) due if prorating reduces production 20%:	\$ 472

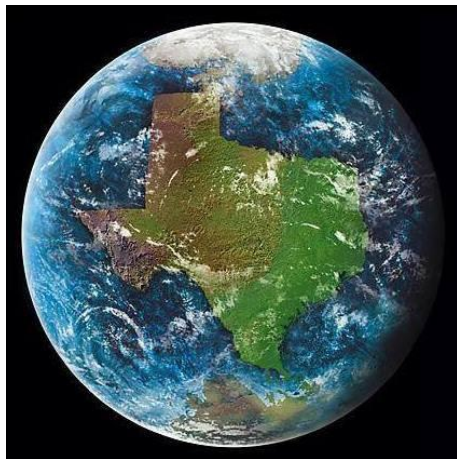
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Texas in a World Oil Market

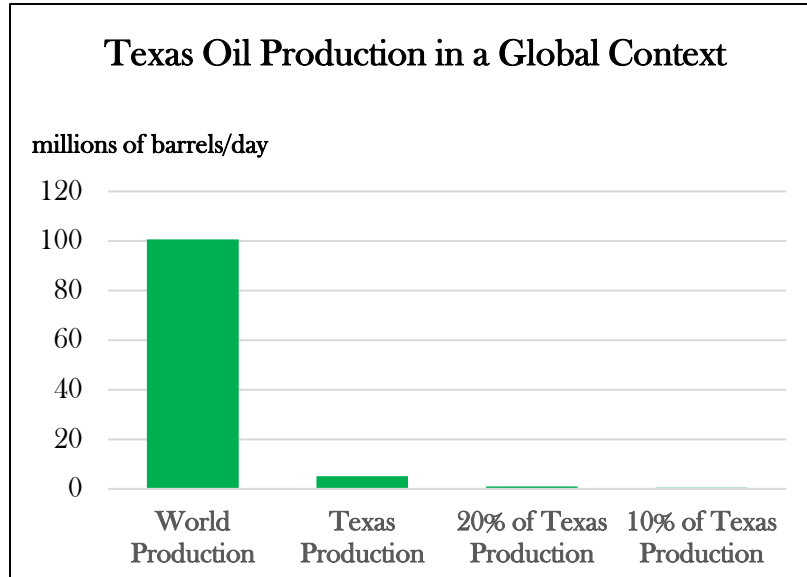
The calculations above are based on assumptions of Texas not necessarily as we like to think of it, but as it probably is. The calculations are simple and so is the logic.

Texas is a large oil producer, but not so large that it commands monopoly pricing power. A monopoly provider of any highly demanded product for which there were no ready and competitive substitute, be it petroleum or platinum, would be in a strong position to name its price to the world. Perhaps not even a monopoly would be required – controlling 40% of world supply might be enough to influence the price. That is roughly the share of production provided by OPEC members. And yet even at that percentage of “control,” the price of oil has descended to very low levels. Agreements to limit production regularly fail to deliver, and the beneficiaries have been those producers who remained outside of the agreements.

Texas As We Like to Think of It



Texas' share of world production is not 40%, but 5%. In the graphic below, Texas' oil production is shown in its comparative scale to the global market in which it competes. Prorating at 20% would remove 1% of oil from world production. Prorating at 10% would remove 0.5% of oil from world production.



Prorating at 10% would be so small it does not even show up on the graphic. Such small changes in production cannot cause a detectable upward movement in price, especially when it could easily be replaced by non-Texas production. And at the same time, the loss in state revenue that is driven by oil production is unavoidable. The market will respond to price, as it always has, without government intervention. And a decision to intervene where there is already a market mechanism may be a decision that proves very hard to un-make.

The loss of state revenue in the hundreds of millions of dollars per year for a venture on prorating does not appear to be a wise trade for Texas' fiscal condition.