

MINUTES OF THE HOUSE COMMITTEE ON TAXATION

The meeting was called to order by the Chairman at 9:00 a.m. February 7, 2001 in Room 519-S of the Capitol.

All members were present except: Representative Flora, excused  
Representative Howell, excused  
Representative Mays, excused  
Representative Wilson, excused

Committee staff present: Chris Courtwright, Legislative Research Department  
April Holman, Legislative Research Department  
Don Hayward, Revisor  
Winnie Crapson, Secretary

Conferees appearing before the committee: Representative Sloan  
Dr. Tim Carr, Kansas Geological Survey  
Robert Krehbiel, Kansas Independent Oil & Gas Assn  
Mark Shreve, Mull Drilling Co.  
Erick Nordling, Southwest Kansas Royalty Owners Assn  
Charles Wilson, Berexco, Inc.

Others attending: See attached list.

The Chairman opened the meeting by asking for bill introductions.

By unanimous consent bill will be introduced to request sales tax exemption for hotel rentals to governmental employees as requested by Ron Hein. [HB 2458 - Sales tax exemption for hotel service rentals to governmental officers and employees]

By unanimous consent bill will be introduced to request sales tax exemption for National Kidney Foundation as requested by Ron Hein. [HB 2459 - Sales tax exemption for Kansas chapters of National Kidney Foundation purchases]

By unanimous consent bill will be introduced to provide more taxpayer oversight of and input to Blue Valley recreation system as requested by Chairman Edmonds. [HB 2408 - Blue Valley Recreation System]

By unanimous consent bill will be introduced concerning sales tax rates imposed by cities as requested by Chairman Edmonds. [HB 2409 - City sales tax rates]

By unanimous consent bill will be introduced concerning income tax credit for contributions to organization providing financial assistance for elementary and secondary students. [HB 2407 - Income tax credit for contributions to organization providing financial assistance for certain students]

Hearing was opened on:

HB 2245 - Electric generation from renewable resources; contracts for parallel generation; income tax credits.

Representative Sloan presented testimony in support of HB 2245 (Attachment #1) and responded to questions from members of the Committee.

Hearing on HB 2245 was closed.

Hearing was opened on:

HB 2062 - Sales tax exemption for oil and gas machinery and equipment

Dr. Tim Carr of the Kansas Geological Survey provided background information (Attachment #2) and responded to questions from members of the Committee.

CONTINUATION SHEET

Robert Krehbiel presented testimony in support of **HB 2062** on behalf of the Kansas Independent Oil & Gas Association (Attachment #3) and responded to questions from members of the Committee.

Mark A. Shreve, President and Chief Operating Officer of Mull Drilling Company, Inc. of Wichita, presented testimony in support of **HB 2062** (Attachment #4) and responded to questions from members of the Committee.

Terry Leatherman presented testimony of Marlee Carpenter, Executive Director of the Kansas Chamber of Commerce & Industry in support of **HB 2062** (Attachment #5).

Erick Nordling presented testimony in support of **HB 2062** on behalf of Southwest Kansas Royalty Owners Association (Attachment #6) and responded to questions from members of the Committee

Hearing on HB 2062 was closed.

Hearing was opened on:

**HB 2066 - Elimination of severance tax on coal and oil**

Robert Krehbiel presented testimony in support of **HB 2066** on behalf of the Kansas Independent Oil & Gas Association (Attachment #7) and responded to questions from members of the Committee.

Charles B. Wilson, Vice President of Berexco, Inc., Wichita, presented testimony in support of **HB 2066** (Attachment #8) and responded to questions from members of the Committee.

Erick E. Nordling presented testimony in support of **HB 2066** (Attachment #9) on behalf of the Southwest Kansas Royalty Owners Association and responded to questions from members of the Committee.

Shawn P. Devlin, Vice President of Viking Resources, Inc., presented testimony in support of **HB 2066** (Attachment #10) and responded to questions from members of the Committee.

Hearing on HB 2066 was closed.

The meeting adjourned at 10:45 a.m. The next scheduled meeting is February 8.



RE: M SLOAN  
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TOPEKA  
HOUSE OF  
REPRESENTATIVES

**TESTIMONY**  
**HOUSE BILL 2245**  
**Renewable Energy Tax Credits**  
**February 7, 2001**

**Mister Chairman, Committee Members:**

I appreciate the opportunity to brief the Committee on one of the bills introduced by the Utilities Committee to forestall any possibility of an energy crisis in Kansas like that experienced in California. California regulators and elected officials made just about every mistake possible during the 1990s as they addressed the changing regulatory environment and competitive electric marketplace.

HB 2245 is the result of two meetings attended by the Utilities Committee Chairman, Vice Chairman, and Ranking Minority Member. The first was an NCSL-sponsored education opportunity on distributive power (small generation units designed for residential and commercial use); the second was the first statewide conference on wind energy that was held last July at KSU. Both conferences focused on the opportunities for electric generation from renewable resources.

While such generation will not replace the need for baseload generation units that are coal-fired or nuclear fueled, generation from renewable resources are

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generally more environmentally friendly, may be used by residential and business customers to reduce their energy costs, and have a niche in the overall generation picture.

HB 2245 will provide tax credits to the traditional investor owned utility (e.g., Western Resources, UtiliCorp United) to purchase electricity generated from hydro, wind, biomass, and other "green" sources. Currently under federal regulation and statutes, utilities must purchase such power for the utility's avoided fuel cost (approximately two cents per kilowatt hour). This price is not sufficient to stimulate investment in renewable energy production and does not take into account the utility companies' total avoided costs (e.g., O & M). Hence the effort to provide an incentive to the utility company to purchase "excess" power from small producers (electricity generated above the need of the generator). The bill limits such purchases to hydro plants of less than 5 MW size and other generators to less than 2 MW. Larger renewable generators are covered by FERC regulations.

HB 2245 recognizes that rural electric cooperatives and municipal electric generators are not eligible for tax credits, hence the second part of the bill allows a \$10 per kilowatt of generation tax credit to the producer. The objective of the bill is to ensure that the development of such generation is encouraged and stimulated as a means of developing an alternative "cash crop" for Kansas farmers and a means of reducing energy costs for residential and small commercial customers.

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To entice the traditional investor owned utility to participate, a tax credit of 110 percent of the value of the purchased power is granted. However, to limit the impact on the State, a cap of \$500,000 credit per company is included in the bill. The intent is to stimulate the development of power sources that benefit small commercial and residential customers.

Thank you Mr. Chairman; I will be pleased to respond to questions.

Tom Sloan  
Representative - 45<sup>th</sup> District

## Testimony before the Tax Committee 2/06/01

Chairman Edmonds and Members of the Committee:

My name is Timothy R. Carr. I am Chief of the Petroleum Research Section of the Kansas Geological Survey, and Co-Director of the Energy Research Center at the University of Kansas. I do not come as an advocate of any legislation before the committee, but to inform you of the importance of oil and gas industry to Kansas citizens and to our state's economy, and my analysis of its structure

I will refer to 2000 Kansas Energy Report and to figures in that report (Kansas Geological Survey Open File Report 2000-69 available on the web at <http://www.kgs.ukans.edu/PRS/publication/2000/ofr69/index.html>). I have provided selected figures as attachments to my testimony.

I will attempt to cover the following aspects of oil and gas production in Kansas.

- 1) The significance of energy production to the health of the Kansas economy. Kansas remains one of the few states in the Union that remains a net exporter of energy. Energy production primarily in the form of oil and gas contributes directly to wealth generated in Kansas.
- 2) The nature of the Kansas oil and gas industry. Stripper wells and small independent producers dominate oil and gas production in Kansas. The result: Kansas oil and gas production is very sensitive to commodity prices and operating costs.
- 3) Some very brief comments on present energy situation and changes in the energy industry.
- 4) My interpretation of critical needs in the Kansas energy industry.

### ENERGY PRODUCTION

Natural gas and petroleum are the most important energy resources in Kansas, accounting for nearly all primary energy produced in the state. Energy production in Kansas peaked in 1967 at 1573 trillion BTU (Attached Figure 1). In 1999, primary energy production had declined to approximately 912 trillion BTU. Natural gas production peaked in 1970 at 900 billion cubic feet (bcf). Petroleum production peaked in 1956 at 124 million barrels (bbls). Of the U.S. states, Kansas is ranked 7<sup>th</sup> in natural gas production and 8<sup>th</sup> in oil production.

In 1999, a total of 912 trillion BTU of energy were produced in Kansas with 63% from natural gas (566 bcf), 22.0% from petroleum (34 million bbls), 11 % from natural gas liquids (NGL; 34.4 million bbls), and less than 1% from coal (414,000 short tons). Since 1960, total energy production in Kansas has dropped by 30%. The majority of this decrease in energy production can be attributed to decreased oil production. Oil's share of the total energy produced in the state has dropped from nearly half of energy production to 22% in 1999(Attached Figure 1).

Estimates put 2000 Kansas production at over 34.3 million barrels of oil and at 550 billion cubic feet of gas. Estimated 2000 production is a conservative extrapolation of reported production for the first eight months of the year. The final reported production numbers are expected to be slightly higher. From 1999 to 2000 oil production shows an estimated marginal increase, and gas production remains flat. Using estimated 2000 average monthly wellhead prices for oil and gas in Kansas, the value of the oil and gas produced in the state is approximately \$3.046 billion. Wellhead value in 2000 is an increase of over \$1.4 billion dollars from 1999. The increase in total wellhead value is a result of

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increased prices, especially for natural gas. In 2000, the value of natural gas production (\$2.052 billion) is more than twice the value of oil production (\$0.924 billion). The significance of the value of Kansas' oil and gas production relative to other parts of the Kansas economy is illustrated by a comparison to agriculture. Over the past 40 years, the value of Kansas oil and gas production is comparable to the value of total statewide crop production as measured by the cash receipts for all the crops produced in the state (Attached Figure 2). In 2000, the wellhead value of Kansas oil and gas production may have exceeded the value of Kansas crop production.

**Oil Production (Stripper Wells and Independents):** Kansas' oil production is dominated by stripper well production operated by small independent companies. Stripper wells are economically marginal oil and gas wells that produce at relatively low rates. As a result, stripper production is sensitive to changes in the wellhead oil price and well operating costs (e.g., electricity, taxes, and wages). The definition of stripper wells varies. For oil, stripper production is usually defined as production rates of between 5 and 15 barrels of oil per day (BOPD). In 1998, a total of 36,885 wells representing over 98% of the producing oil wells in Kansas averaged less than 15 BOPD and would be classified as stripper production. These stripper wells produce approximately 75% of total Kansas' oil production. Each of these well bores represents a very large capital investment that is at risk of being plugged and abandoned. Each existing stripper well represents a resource that is put back into production when prices rise sufficiently to make production economic. Monthly changes in production over the last decade have shown a strong positive correlation to current wellhead prices (Attached Figure 3).

In 1999, 2,273 different operators reported oil production. The average Kansas independent produced just over 15,000 barrels of oil in 1999. The top ten producing companies produced approximately 25% of the oil in 1999. All ten top producing companies are independents. Five of the top ten producing companies are headquartered and primarily operate in Kansas (Oklahoma 2, Texas 3). Independent operators dominate Kansas' oil production. Large integrated petroleum companies control less than 5% of Kansas' oil production (e.g., BP Exxon-Mobil or Texaco).

**Natural Gas (Southwest Kansas and the Death of Seasonality:** Kansas gas production is dominated by the large fields of southwest Kansas (e.g., Hugoton, Panoma, Byerly, Bradshaw, and Greenwood). However, stripper gas production in Kansas is significant. Stripper gas production would generally be anything less than 90 thousand cubic feet per day (MCFPD). In Kansas, 63% of the 17,146 producing gas wells averaged less than 90 MCFPD and produced 24.1% of the gas. As with oil, stripper gas production is sensitive to changes in the wellhead oil price and well operating costs (e.g., electricity, taxes, and wages).

In 1999, 1,015 different operators reported natural gas production. The average Kansas independent produced just less than 550,000 mcf of gas in 1999. The top ten producing companies produced approximately 78% of the gas in 1999. Seven of the top ten producing companies are independents. Kansas' gas production is a mix of the two largest integrated petroleum companies in the world and independent companies.

The seasonal nature of natural gas production has changed significantly after the mid-1990's. Prior the mid-1990's natural gas displayed a seasonal pattern with peak production during the winter heating season (Attached Figure 4). This variation in production was also reflected in seasonal price fluctuations. With the construction of underground gas storage, the development of futures markets, and the increased use of natural gas in electric power generation, seasonal variations in production and price have disappeared. As a result, during the summer there is no longer a cheap and plentiful supply of natural gas to power irrigation pumps in southwest Kansas.

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## PRESENT CONDITIONS

We are seeing rapid changes in our energy systems and strong challenges to maintaining reliable supply to the consumer. The changes come from a number of different quarters, and are domestic in origin (They affect not only oil but parts of energy system such as natural gas and electricity that are not dominated by imports).

**Natural Gas:** Demands on natural gas for electric power generation are absorbing all the excess natural gas supply during warm months, gas that traditionally was put into storage for use as a home heating fuel during the winter. As a result entered the winter of 2000-01 with very low natural gas storage levels and extremely high prices.

The last few winters have had above-normal temperatures, masking the increased demand for natural gas resulting from the strong economic growth and the increased electrification. The winter of 1999-2000 had 3,404 Heating Degree Days (HDD). The normal winter is 3,958 HDD. As this winter appears more seasonable, wellhead prices have exceeded \$9-10/MCF for periods of time. As storage levels approach historically low levels, the ability of underground natural gas storage facilities to meet peak demand will be significantly degraded. By using natural gas to solve an electric supply problem, we have created a gas supply problem. The highest prices may coincide with the end of the heating season and the onset of irrigation as storage levels reach their lowest levels (i.e., April-May-June).

If we limp out of the winter 2000-01 with less than 500 Bcf of gas in storage, we will barely get storage back to even half-full before newly installed summer gas-fired electricity plants are cranked up. If summer weather is hot, particularly in the population areas of the eastern U.S., gas storage withdrawals may occur in the summer. If this does not happen in summer 2001, it will almost certainly occur a year later. Once gas withdrawals begin in the summer, the U.S. has one winter left before our storage system runs dry.

**Energy is a Global Integrated Market:** With improved communication and transportation of energy (The two major factors in Adam Smith's *Invisible Hand*), we have radically changed energy markets. Energy is increasingly a national and global market dominated by high technology, high capital requirements and large integrated companies. All companies are now competing to various degrees in an unregulated market (Even our regulated utilities). Small and mid-sized companies, which dominate the Kansas energy system, must continue to innovate in order to compete. To meet the rapid changes in energy demand, Kansas must work to increase energy supply to prevent shortages and maintain reasonable costs. Kansas and US energy supply will continue to be dominated by fossil fuels. However, an economic and measured approach that integrates new energy sources (e.g., wind and ethanol production from agricultural production) into the Kansas energy system can have a positive impact. Increased synergy and efficiencies are required among all the various aspects of the Kansas energy system.

## KANSAS NEEDS

**High Risk Technology:** Over the past two decades economic incentives have not been adequate to attract capital to increase drilling activity and maintain our personnel and capital infrastructure. To substantially increase petroleum production will require attracting technical talent, increased application of technology, and improved access to high risk capital.

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In Kansas average drilling activity reached a historical low of 3 per week in 1999. In 1982 over 200 deep rigs worked in Kansas. In 2000 with the increase in oil and gas prices, the active deep rig count has increased to approximately 25-30 (25 on 12/29/00). Workover rigs increased from 60 to 80 rigs at work to 150 to 170 rigs at work (Workover rigs are smaller rigs that perform maintenance work on producing wells). Again the infrastructure and trained personnel in Kansas oil and gas industry have been decimated. Our current activity is probably the maximum activity that can be supported without a major increase in equipment and personnel.

Risk capital is an essential prerequisite to application of new innovative technologies to increase energy production. Maintaining and even increasing Kansas petroleum supply over the long term depends on the introduction of new technologies, such as horizontal drilling, 3-D seismic, improved access to digital information, and capital-intensive enhanced oil recovery methods such as CO2 flooding. Large integrated international companies have relatively easy access to capital markets and significant internal cash flows that can be accessed for innovation capital. Banks, small investors, internal cash flow, and other traditional sources of capital for the Kansas independent cannot meet the capital needs for high-risk projects that represent early or first application of new technologies. There is no source of capital at the state level for Kansas energy producers to use for new technology and high-risk innovation. The Survey and the KU Energy Research Center have worked with Kansas independents to locate this capital at the federal level (usually 50/50 or 40/60 match dollars). I believe we are seeing some positive impacts that have the potential to significantly increase Kansas energy production. However, federal dollars are very limited, competitive, and focused on national problems. If this capital is not readily available, we can expect energy production in Kansas will continue to decline.

**Improved Energy Data:** When putting together the Kansas Energy Report, we had to pull data from numerous sources. Some of this data such as electric power plant production and emissions is passed upwards to the federal government, but to my knowledge is not available at the state level (e.g., EPA-AIRS, FERC-423, EIA-861, EIA-860, EIA-759). We are working with federal agencies to bring Kansas data back to Kansas (In some cases we are designing relational database systems for the federal government to improve our access to Kansas data). Can't we devise systems and requirements to intercept these reports as they travel to Washington? In Kansas, our oil and gas reporting system is scattered among different agencies with different missions (e.g., KDOR, KCC, KDHE and the Survey). We need to improve our collection and dissemination of data. Our present system of paper copies stashed away in file cabinets and flat computer files do not represent an efficient approach.

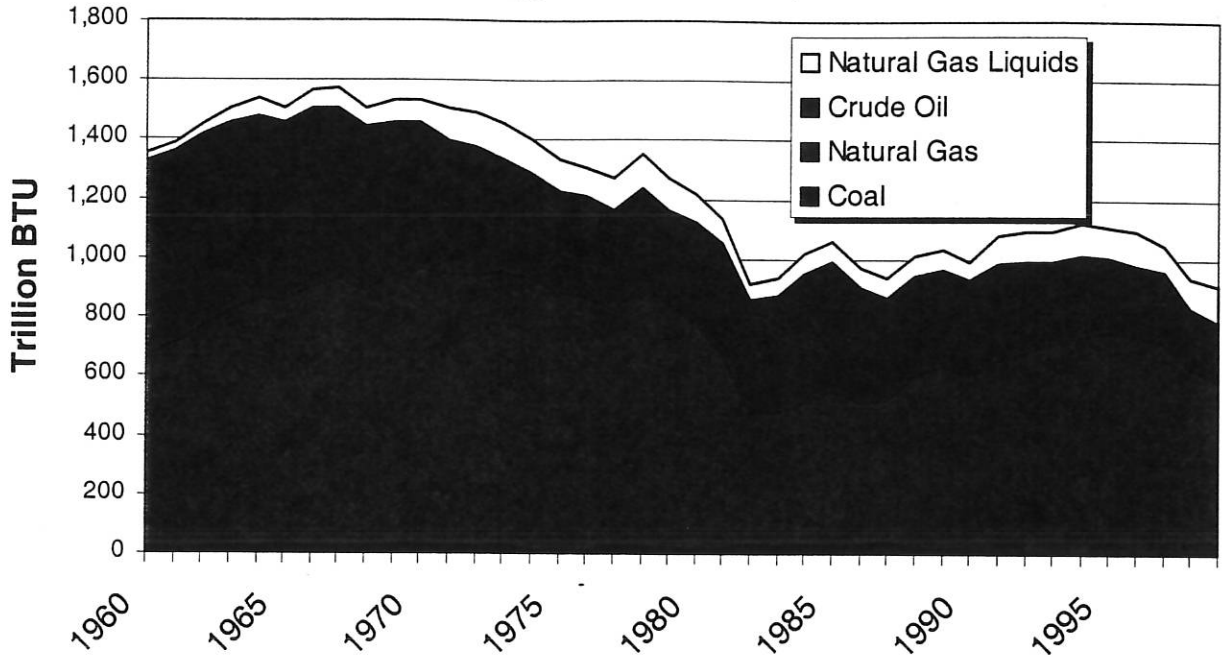
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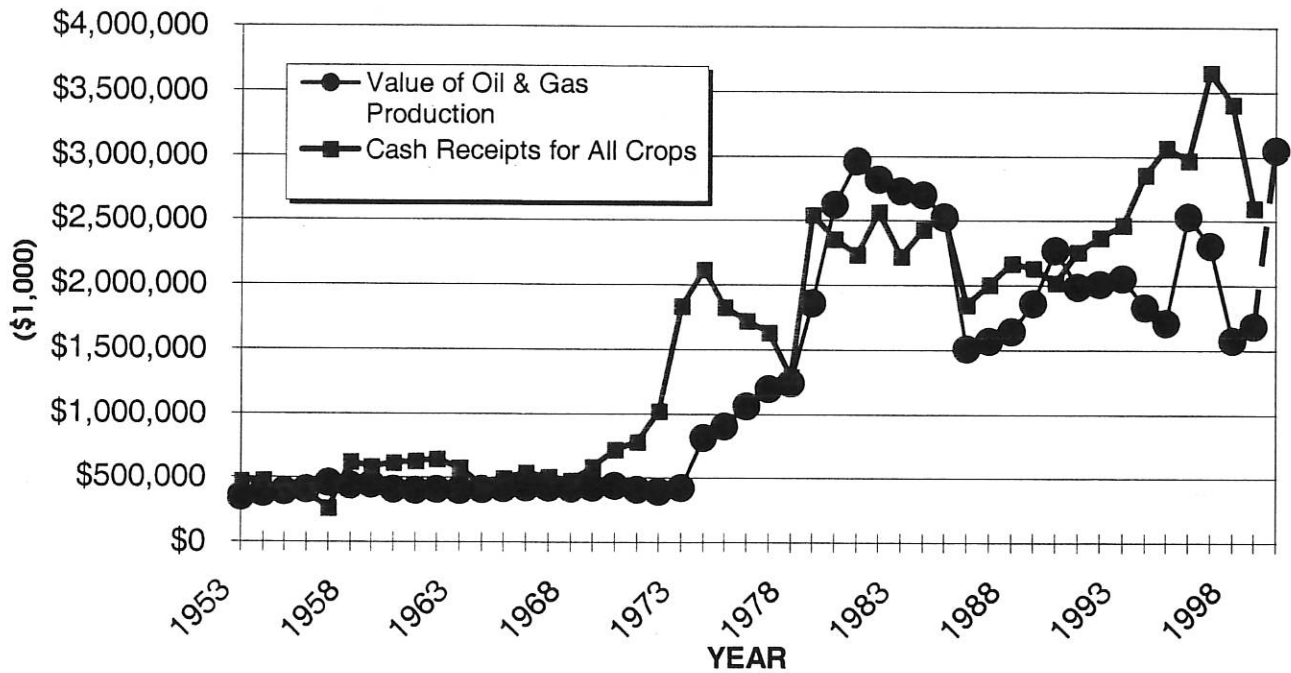
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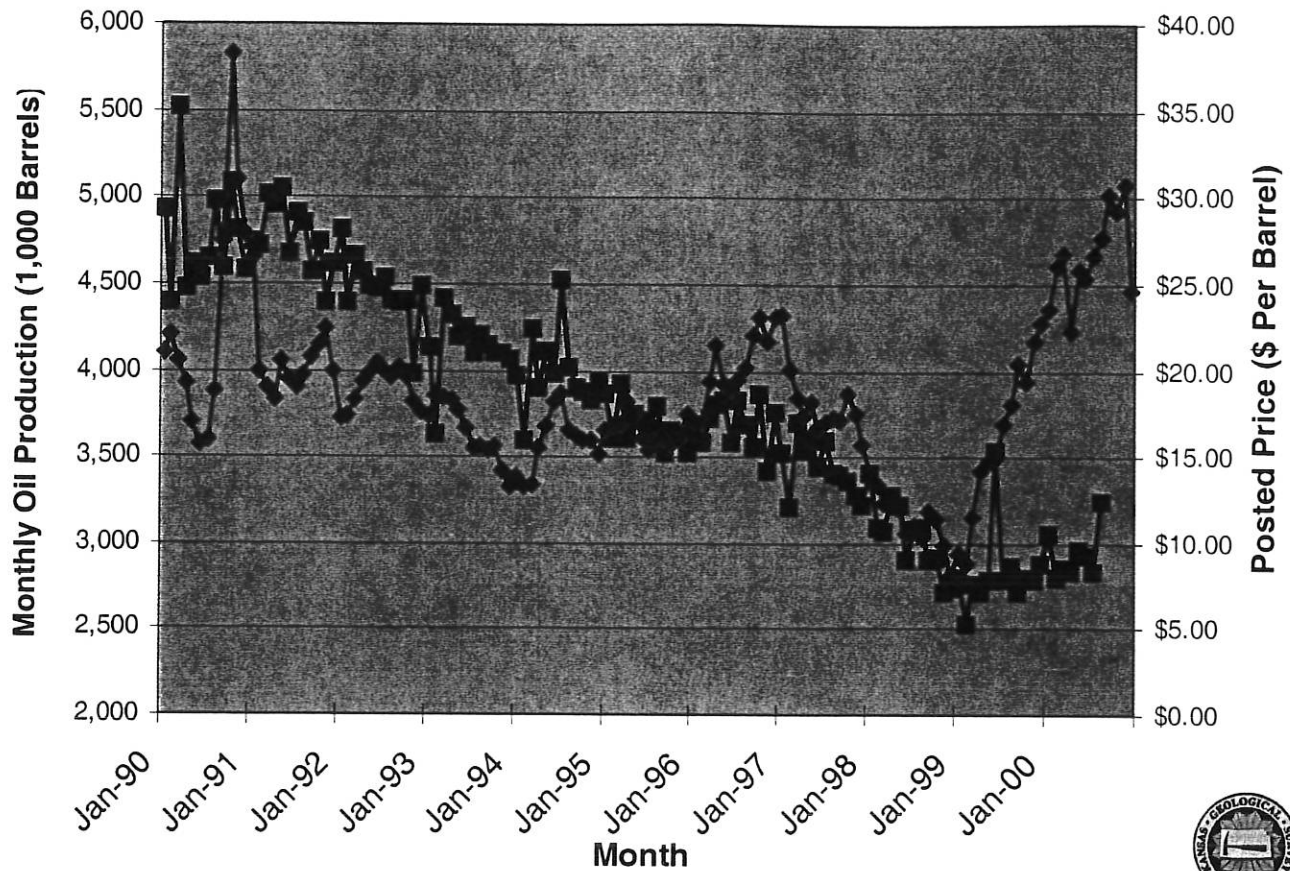
### Kansas Energy Production, 1960-1999



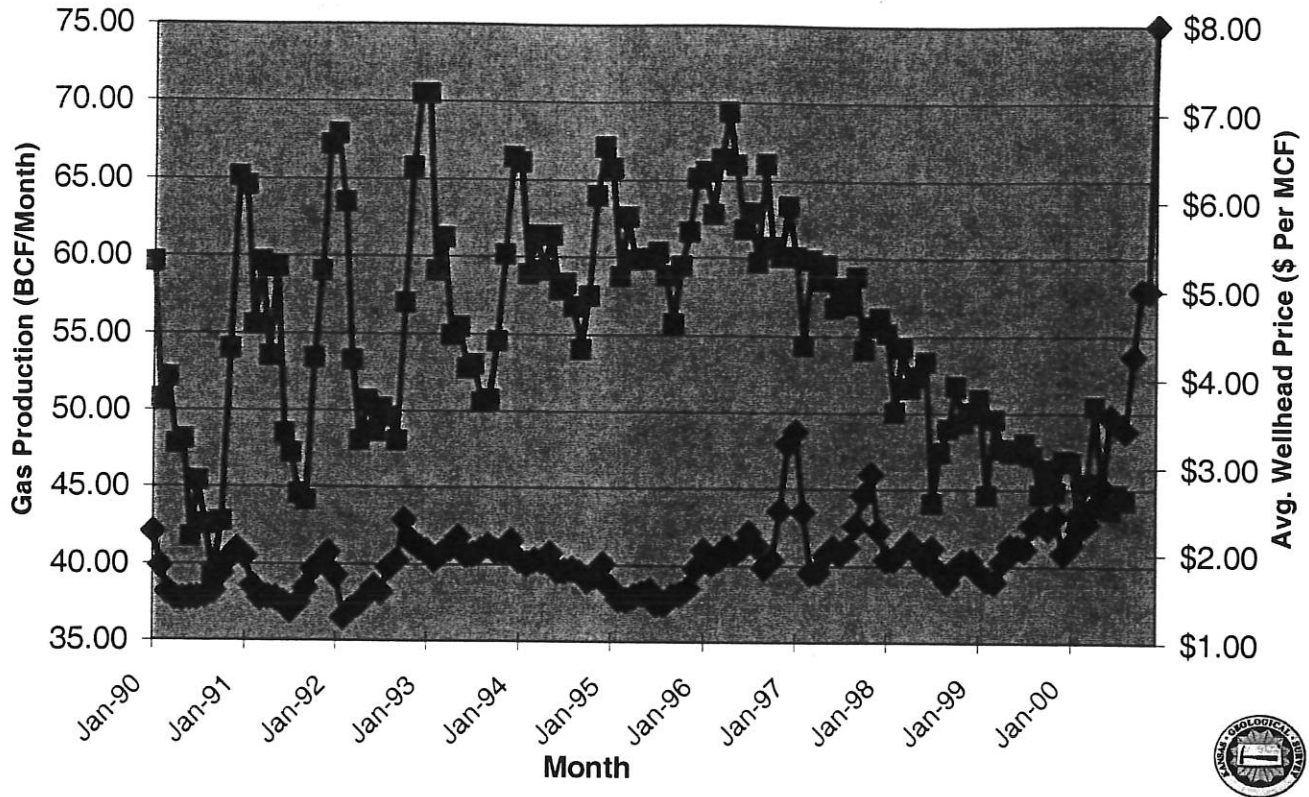
**Figure 1** - Kansas total energy production peaked in 1967. The biggest decline in energy production has been in crude oil.



**Figure 2** - Wellhead value of Kansas hydrocarbon production compared to cash receipts for all crops. Estimated wellhead value for 2000 is \$3.046 billion and represents an increase of \$1.4 billion from 1999. Over the past 40 years, the value of Kansas oil and gas production is comparable to the value of total statewide crop production as measured by the cash receipts for all the crops produced in the state.



**Figure 3** - Monthly Kansas oil production and average monthly wellhead price 1990-2000. Kansas production shows a positive correlation to wellhead price and the effect of rising prices during 2000. Production is through August and prices are the average daily-posted wellhead price through December. Prices are in nominal dollars. Prices are average monthly-posted prices from Koch Petroleum Group for Central Kansas Crude. Prices available at <http://www.kochoil.com/>.



**Figure 4 - Monthly Kansas natural gas production and average monthly wellhead price 1990-2000.** Kansas production shows significant changes in production patterns. The seasonal production pattern of the first part of the decade disappeared. The steady decline from early 1997 is attributed to declining pressures in the major gas fields of southwest Kansas. However, the decline has slowed and monthly production may be increasing during 2000. Production is through August 2000 and prices are the average daily-posted wellhead price through December 2000.

HOUSE COMMITTEE ON TAXATION

Wednesday, February 7, 2001

HOUSE BILL No. 2062

TESTIMONY OF  
Robert E. Krehbiel, Exec V.P.  
Kansas Independent Oil & Gas Association

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TESTIMONY

Mr. Chairman and Members of the Committee:

My name is Robert E. Krehbiel and I am appearing on behalf of the Kansas Independent Oil & Gas Association. Kioga was organized 65 years ago to represent the interests of the many independents who explore for and produce oil and gas in Kansas. It is a privilege for me to appear before you today.

We are appearing in support of HB 2062. HB 2062 would provide equity and fairness to the sales tax treatment of the oil and gas industry as compared to the other major industries in Kansas, Agriculture and Manufacturing. HB 2062 simply provides the same sales tax exemption as that applied to the Agriculture and Manufacturing industries. And, HB 2062 would eliminate disincentives to investing in the infrastructure of the oil and gas industry, disincentives to investing in the exploration and production of oil and gas, and disincentives to maintaining and maximizing the existing production of oil and gas in Kansas.

Much of Kansas' tax policy impacting the oil and gas industry was put in place at a time when the economic condition of this industry was very strong and future projections were extraordinarily optimistic. When prices were strong the Federal Government placed price controls and windfall profits taxes on sales of crude oil at the wellhead leaving the federal government the primary beneficiary of the high crude oil prices of the time. The State of Kansas passed a severance tax in addition to the already existing property tax creating an effective tax rate on oil and gas which was three times greater than that placed on all other industries. At the same time, County Appraisers were valuing oil and gas production so high as compared to other types of property that their valuations were deemed to violate the uniform and equal provision of the Kansas Constitution. But, when the constitutional issue was pressed, rather than assess oil and gas uniformly and equally in accordance with the Kansas Constitution, the then Governor of Kansas promoted the passage of Legislation to change the Constitution. The result was a classification amendment which placed oil and gas in a class which allowed the extraordinary taxation of the oil and gas industry to continue. Then when sales tax exemptions for machinery and equipment were passed the exploration and production component of the oil

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and gas industry was excluded.

The tax policy of the time, of both the federal and state government, can only be described as punitive. The impact was to accelerate the demise of a once productive Kansas industry. The decline of the oil and gas industry in Kansas is well documented. Where two hundred rotary rigs were once active only twenty remain. Over ten thousand jobs have been lost. The infrastructure of a once prolific industry has been decimated. In the early 1970's the U.S. imported less than 35% of crude oil consumed. Today the U.S. imports over 55% and imports are the single largest component of the U.S. trade deficit. The decline of the U.S. domestic exploration and production industry has left our country ever more vulnerable to foreign supply disruptions and sudden spikes in petroleum prices.

The extraordinary taxation of the domestic oil and gas industry can no longer be justified. Kansas' oil and gas producers should be taxed like those who produce raw agricultural products and those who convert raw tangible personal property to useful products in the manufacturing process. There is no logical explanation, justification or rationale that, today, can support the disparity in treatment.

The exemptions for agriculture and manufacturing are found at K.S.A. 79-3606 and read as follows:

“The following shall be exempt from the tax imposed by this act:

(t) all sales of farm machinery and equipment or aquaculture machinery and equipment, repair and replacement parts therefor and services performed in the repair and maintenance of such machinery and equipment.

(k)(k) (1)(A) all sales of machinery and equipment which are used in this state as an integral or essential part of an integrated production operation by a manufacturing or processing plant or facility;(B) all sales of installation, repair and maintenance services performed on such machinery and equipment; and (C) all sales of repair and replacement parts and accessories purchased for such machinery and equipment.....(4)(includes) (A)Computers and related peripheral equipment that are utilized by a manufacturing or processing business for engineering of the finished product or for research and development or product design;(B) machinery and equipment that is utilized by a manufacturing or processing business to manufacture or rebuild tangible personal property that is used in manufacturing or processing operations, including tools, dies, molds, forms and other parts of qualifying machinery and equipment; (C) portable plants for aggregate concrete, bulk cement and asphalt including cement mixing drums to be attached to a motor vehicle; (D) industrial fixtures, devices, support facilities and special foundations necessary for manufacturing and production operations, and materials and other tangible personal property sold for the purpose of fabricating such fixtures, devices, facilities and foundations.”

In 1991, Governor Joan Finney proposed removing all exemptions to the sales tax and to

use the resulting revenues to lower property taxes. At that time repeal of these exemptions would have raised nearly \$1 billion in annual revenue. Repeal of the Agriculture exemption would have raised an estimated \$32.4 million at that time and repeal of the Manufacturing exemption would have raised an estimated \$42.5 million. Repeal of the enterprise zone exemption which included manufacturing machinery and equipment would have raised an additional \$11.8 million. This Committee was provided with an update of these estimates by the Office of Policy and Research of the Kansas Department of Revenue on January 11, 2001. The Department's current estimate for agriculture is \$49.941 million and the new estimate for manufacturing is \$90.474 million for FY 2002.

But Governor Finney's proposal was largely rejected. The tax committee in 1991, reviewed each exemption and determined that the benefits to the state of these sales tax exemptions exceeded their cost and should be retained. The logic of the 1991 tax committee applies equally today to the oil and gas industry. A recent study by the Interstate Oil and Gas Compact Commission reveals that tax incentives applied to the oil and gas industry returns \$2.27 for every dollar invested. The study determined that states receive up to \$39 in increased gross output for each incentive dollar granted and up to \$5.20 in new salaries generated by each tax dollar the industry keeps and that the typical oil and gas incentive attracts about \$1.098 billion in investment activity during its life and creates 6,000 years of work. A copy of the IOGCC Briefing Paper's Key Findings is attached.

Today the average Kansas well produces 2.4 barrels of oil per day. Kansas is home to over 40,000 marginal wells. Each well is a resident Kansas consumer expending approximately \$10,344 on Kansas jobs, goods and services. This amounts to over \$417,000,000 annually. It would take over 20,000 new jobs in Kansas to offset the loss of purchasing power of the Kansas marginal oil well base. Marginal wells return over \$60,000,000 annually to landowners in royalty payments with a significant portion of these funds remaining in rural communities. When these wells go down the sales tax on the repairs, replacement parts and labor services is a significant disincentive to making the necessary investment to restore production and abandonment becomes the alternative. The sales tax on equipping new wells is also a significant disincentive to drilling and exploration activities.

The logic supporting the benefit of exemptions for agriculture and manufacturing is no

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different for the oil and gas industry. The oil and gas industry needs to be revitalized and it can continue to be a significant part of the Kansas economy providing income, energy and jobs for Kansas citizens for many years to come . We urge passage of HB 2062.

Thank you very much for your time and consideration.

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# IOGCC Briefing Paper

An Issue Summary from the Interstate Oil and Gas Compact Commission (IOGCC)

## KEY FINDINGS

From the IOGCC's 1998 report on state oil and gas incentive programs,  
*Investments in Energy Security*

- State and local tax collection streams get back \$2.27 for every dollar invested in tax credits.
- States receive up to \$39 in increased gross output for each incentive dollar granted. Up to \$5.20 in new salaries is generated for each tax dollar the industry keeps.
- The typical oil and gas incentive attracts about \$1.098 billion in investment activity during its life and creates 6,000 years of work.
- For the 17 state incentive programs studied:
  - Approximately \$18 billion in final demand was associated with the work.
  - Over 100,000 years of employment were attached.
  - Over \$920 million in net additional state taxes were associated with the efforts.
  - The federal government received over \$400 million in income tax payments.
  - People were paid \$2.5 billion in salaries to do the work.
- The oil and gas investment and production activity involved with these 17 incentives creates over \$16 billion per year in economic impact.
- Salaries are among the highest in any sector. For example, average earnings per oil and gas job in Montana equals \$32,380—considerably above the statewide average of \$20,500 for all industries and \$25,679 for the manufacturing sector.
- Each job created by the oil and gas industry results in an average 2.3 additional indirect jobs being created in other economic sectors.
- States receive a net annual tax gain of \$530 million on the investment in taxes distributed as incentives.
- Among the additional, immeasurable benefits is the positive atmosphere created for oil and gas investment. Just as the United States competes with other countries to lure industrial investment, so must the United States aggressively compete with other countries to attract petroleum industrial investment. A company will invest where it is most welcome — if by financial incentives or a government attitude that appreciates the investment dollars.

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The Interstate Oil and Gas Compact Commission (IOGCC) is an organization of 36 states formed in 1935 to promote the conservation and efficient recovery of the nation's oil and gas resources, while protecting health, safety and the environment.

For more information, call 405/525-3556 or e-mail [iogcc@oklaosf.state.ok.us](mailto:iogcc@oklaosf.state.ok.us). Or  
[www.iogcc.oklaosf.state.ok.us](http://www.iogcc.oklaosf.state.ok.us). Mailing address: 900 N.E. 23rd Street, Oklaho.

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HOUSE COMMITTEE ON TAXATION

Wednesday, February 7, 2001

HOUSE BILL NO. 2062

TESTIMONY OF  
Mark A. Shreve, President & Chief Operating Officer  
Mull Drilling Company, Inc.  
Wichita, Kansas

Mr. Chairman and Members of the Committee:

My name is Mark Shreve. I am the President and Chief Operating Officer of Mull Drilling Company. Today, Mull Drilling Company employs 38 people in Kansas and Colorado. In 1998, we employed 52 people. Our primary business is the exploration, development and production of oil and natural gas. Today, our business is profitable. Two years ago our company lost a sizable amount of money. Because of the higher than normal oil and natural gas prices, most people think that our industry is healthy. Unfortunately, our industry has not recovered from a decade and a half of low wellhead prices and the depression era prices of 1998 and 1999. Much of the skilled labor force and infrastructure required to drill and produce oil and natural gas wells was lost in our state during the price downturn of 1998 and 1999. As a result, it has become difficult to recruit workers back into our industry.

Those of us who have survived the low prices and wild price swings are now unable to get contractors to drill and service our wells. Recently, I contacted service contractors to drill a well for our company in Lane County, Kansas. I asked four different contractors for bids to drill a well by June of this year. Only one of the four stated that they would be able to drill the well by June. When old wells break down, it is days or weeks before a workover unit is available to work on the old well to restore it to production. These delays in getting work performed are not caused by unprecedented high numbers of wells being drilled and produced. The number of wells drilled in 2000 was less than half the number of wells drilled in 1991 and 14% fewer wells than were drilled in 1997. The erosion of the infrastructure of our industry has caused the delays.

It is also difficult to attract new capital to our industry. Potential investors see that our industry is the most heavily taxed in the state. Not only does our industry pay Ad Valorem and Income Taxes like other industries, but we also have to pay Severance Tax on the product we produce and Sales Tax on equipment & machinery on all our wells and Sales Tax on labor performed on existing wells. Most other industries with which we compete for investment capital are exempt from paying State Sales Tax.

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House Bill 2062 is a bill that will provide tax equity for the oil and natural gas industry with other important industries in our State. The petroleum industry is very similar to farming in many ways. Those of us who make a living in oil and natural gas work the subsurface, much like a farmer works the surface, of the land to produce a commodity on which our fellow Kansans and Americans depend. The family oilworker provides fuel for our machines, whereas the family farmer provides fuel for our bodies. Neither the oilman nor the farmer has control over the price of the product he or she produces. During low commodity price swings, we are both forced to sell our products below production costs. During high commodity price spikes, we attempt to make enough profit to see us through the next inevitable downturn. The farmer has one significant advantage over the oilman, however. The farmer does not have to pay sales tax on equipment and machinery. Neither does the farmer have to pay sales tax on labor for repairs to his or her equipment. In the oil and natural gas industry, however, we are required to pay Kansas State sales tax on all of our equipment and machinery as well as labor services performed on existing wells.

The Kansas Legislature has previously determined that exempting agricultural machinery, equipment and labor from State Sales Tax is good for the Kansas economy. Likewise, the Legislature has determined that a State Sales Tax exemption for equipment, machinery and labor for the manufacturing industry in Kansas is also justifiable. I agree that exemptions for both of these industries are prudent tax policy. I am asking you today to provide these same exemptions to another important industry to our state, the oil & natural gas exploration and production industry. Machinery & equipment purchases and labor & repair services used in producing crude oil and natural gas should be taxed in the same manner as machinery & equipment purchases and labor & repair services used to produce corn.

Thank you for your time and consideration.

HOUSE TAXATION

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# LEGISLATIVE TESTIMONY



835 SW Topeka Blvd. • Topeka, KS 66612-1671 • 785-357-6321 • Fax: 785-357-4732 • E-mail: [kcci@kansaschamber.org](mailto:kcci@kansaschamber.org) • [www.kansaschamber.org](http://www.kansaschamber.org)

HB 2062 & 2066

February 7, 2001

## KANSAS CHAMBER OF COMMERCE AND INDUSTRY

Testimony Before the  
House Taxation Committee  
by  
Marlee Carpenter  
Executive Director, Kansas Retail Council

Mr. Chairman and members of the Committee:

My name is Marlee Carpenter and I am the Director of Taxation and Small Business for the Kansas Chamber of Commerce and Industry (KCCI). We are here today to express our support for HB 2066, the repeal of severance tax on the production coal and oil and HB 2062, the oil and gas integrated plant bill.

The Kansas Chamber of Commerce and Industry (KCCI) is a statewide organization dedicated to the promotion of economic growth and job creation within Kansas, and to the protection and support of the private competitive enterprise system.

KCCI is comprised of more than 2,000 businesses which includes 200 local and regional chambers of commerce and trade organizations which represent over 161,000 business men and women. The organization represents both large and small employers in Kansas, with 48% of KCCI's members having less than 25 employees, and 78% having less than 100 employees. KCCI receives no government funding.

The KCCI Board of Directors establishes policies through the work of hundreds of the organization's members who make up its various committees. These policies are the guiding principles of the organization and translate into views such as those expressed here.

The KCCI Taxation and Public Finance Committee has a policy in place that calls for the repeal of the severance tax. We believe that the repeal of this tax would stimulate the production of

coal and oil and help reduce the strain on the price of natural resources.

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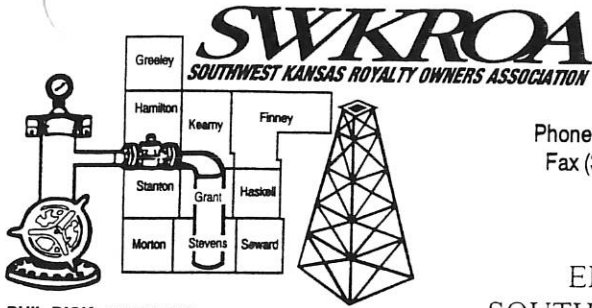
repeal of the severance tax helps not only the oil and coal producers but also the oil and coal consumers in the state. KCCI urges your support of HB 2066.

Last session, HB 2011, the integrated plant bill was passed. Oil and gas producers were included in the original version of the integrated plant bill but were not included in the version signed by the Governor. We believe that the oil and gas industry should be afforded the same tax treatment as business in general and urge support of HB 2062.

KCCI supports the enactment of both HB 2066 and HB 2062 and believes that these measures are a positive step forward for the oil and gas industry in the state.

Thank you for your time today and we urge you to support HB 2062 & 2066. I will be happy to answer any questions.





**SWKROA**  
SOUTHWEST KANSAS ROYALTY OWNERS ASSOCIATION

Phone (316) 544-4333  
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209 E. 6th St. / P.O. Box 250  
Hugoton, Kansas 67951

**PHIL DICK, PRESIDENT**  
**ERICK NORDLING, EXECUTIVE SECRETARY**  
**B.E. NORDLING, ASST. SECRETARY**

STATEMENT OF  
ERICK E. NORDLING, EXECUTIVE SECRETARY  
SOUTHWEST KANSAS ROYALTY OWNERS ASSOCIATION  
HUGOTON, KANSAS 67951

February 7, 2001

To the Honorable Members of the House Committee on Taxation:

**RE: House Bill 2062 relating to exemptions from sales taxation for certain oil and gas equipment and services therefrom**

Chairman Edmonds and Members of the Committee:

My name is Erick E. Nordling of Hugoton. I am Executive Secretary of the Southwest Kansas Royalty Owners Association (SWKROA). I am appearing on behalf of members of our Association and on behalf of Kansas royalty owners to support of House Bill No. 2062 dealing with exempting from sales taxation certain oil and gas equipment and services therefrom.

BACKGROUND ON SWKROA

SWKROA is a non-profit Kansas corporation, organized in 1948, for the primary purpose of protecting the rights of landowners in the Hugoton Gas Field. We have a membership of around 2,300 members. Our membership primarily consists of landowners owning mineral interests in the Kansas portion of the Hugoton Field who are lessors under oil and gas leases, as distinguished from oil and gas lessees, producers, operators, or working interest owners.

SALES TAX EXEMPTION BILL

House Bill No. 2062 is an industry sponsored bill which exempts from sales taxation certain oil and gas equipment and services therefrom.

It is very important for the United States to develop and implement policies that will encourage responsible development of natural resources within its borders to help make itself energy independent.

To the extent that HB No. 2062 helps to promote further development and exploration of long term stable oil and gas supplies in Kansas, and the cost effective maintenance of existing production of oil and gas in Kansas, SWKROA supports the bill.

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Thank you for this opportunity to present these concerns to your honorable committee.

Respectfully submitted,

Erick E. Nordling,  
Executive Secretary, SWKROA

EEN:een

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HOUSE COMMITTEE ON TAXATION

Wednesday, February 7, 2001

HOUSE BILL No. 2066

TESTIMONY OF  
Robert E. Krehbiel, Exec V.P.  
Kansas Independent Oil & Gas Association

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Mr. Chairman and Members of the Committee:

My name is Robert E. Krehbiel and I am appearing on behalf of the Kansas Independent Oil & Gas Association. KIOGA was organized 65 years ago to represent the interests of the many independents who explore for and produce oil and gas in Kansas. We are appearing in support of HB 2066. HB 2066 would repeal the severance tax on crude oil and coal. The severance tax on natural gas would not be affected.

#### THE MINERAL SEVERANCE TAX

The Mineral Severance Tax was enacted in 1983, effective May 1, 1983, and is codified at K.S.A. 79-4216 through 4230. The tax is applied to the gross value of each barrel of oil severed and subject to the tax and to the gross value of the gas severed and subject to such tax. K.S.A. 79-4217 sets the rate of the tax at 8% of the gross value of all oil or gas severed from the earth or water in this state and subject to such tax. K.S.A. 79-4219 provides for a credit against such tax of 3.67% for ad valorem property taxes paid upon the oil or gas property. Thus the severance tax rate, with the ad valorem tax credit deducted, becomes 4.33% of the sale price at the time of removal from the oil and gas lease.

K.S.A. 79-4217 contains a series of 24 exemptions to the severance tax including the following:

1. Gas injected into the earth for lifting, recycling or re-pressuring oil.
2. Gas used as a fuel for operations, development or production of oil and gas in a lease.
3. Gas lawfully vented or flared.
4. Gas severed from a well valued at not more than \$87. (1998)
5. Gas inadvertently lost on the lease due to leaks, blowouts or accidental losses.
6. Gas used for domestic or agricultural purposes on the lease or unit.
7. Gas placed in underground storage originally severed outside of Kansas.
8. Oil from a lease or unit whose average daily production is 5 bod or less per well. (1998)
9. Oil from a lease or unit completed at 2000 feet or more whose average daily production is six bod or less per producing well. (1998)
10. Oil from a lease or unit completed at 2000 feet or more whose price is \$16 or less and whose average daily production is seven bod or less per well. (1998)

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11. Oil from a lease or unit completed at 2000 feet or more whose price is \$15 or less and whose average daily production is eight bod or less per well. (1998)
12. Oil from a lease or unit completed at 2000 feet or more whose price is \$14 or less and whose average daily production is nine bod or less per well. (1998)
13. Oil from a lease or unit completed at 2000 feet or more whose price is \$13 or less and whose average daily production is ten bod or less per well. (1998)
14. Oil recovered from a tertiary recovery process.
15. Oil from a waterflood lease or unit completed at less than 2000 feet whose average daily production is six bod or less per producing well. (1998)
16. Oil from a waterflood lease or unit completed at more than 2000 feet whose average daily production is seven bod or less per producing well. (1998)
17. Oil from a waterflood lease or unit completed at more than 2000 feet whose price is \$16 or less and whose average daily production is eight bod or less per producing well. (1998)
18. Oil from a waterflood lease or unit completed at more than 2000 feet whose price is \$15 or less and whose average daily production is nine bod or less per producing well. (1998)
19. Oil from a waterflood lease or unit completed at more than 2000 feet whose price is \$14 or less and whose average daily production is ten bod or less per producing well. (1998)
20. Oil that is used for a test, frac or swab and sold.
21. Oil accidentally lost on lease or unit.
22. Oil or gas produced from a new pool for a period of 24 months.
23. Oil or gas produced from a three-year inactive well.
24. Incremental production of oil or gas resulting from an enhanced production project when the price of crude oil is less than \$20 per barrel and the price of gas is less than \$2.50 per mcf. (1998)

#### SEVERANCE TAX COLLECTIONS SINCE INCEPTION

Severance taxes collected since the effective date of the Mineral Severance Tax, May 1, 1983, are set out on the page attached and entitled "Severance and Property Taxes on Oil and Gas". Approximately \$1.3 billion in severance taxes have been collected from Kansas producers in the eighteen years, which followed.

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Preliminary to passing the severance tax the Legislature debated whether the severance tax should replace the already existing ad valorem property taxes on oil and gas or whether the severance tax should be "in addition to" these property taxes. K.S.A. 79-4218 made it clear that the severance tax would be "in addition to all taxes imposed upon real or personal property by the state of Kansas or by any taxing subdivision thereof". For that reason the attached chart also includes property taxes on oil and gas since inception of the severance tax. Collection of severance taxes and property taxes combined exceed \$3.1 billion in that same time period. This combination of taxes results in an effective tax rate of 9.7% in 1988 according to an analysis by Arthur D. Little and Company, commissioned by Kansas, Inc in 1989. Column 14 of the attached chart on severance and property taxes would indicate that the effective tax rate on oil and gas production has changed very little. In 1999 the chart would indicate that the effective tax rate is 9.8% on oil and gas production.

Effective tax rates for other Kansas industries was the subject of a study done in 1998 by the Institute for Public Policy and Business Research at the University of Kansas and funded by Kansas, Inc. By comparison, the effective tax rates resulting from taxes on commercial and industrial properties was 2.74%

When the severance tax was established, collections in fiscal year 1984 were \$111 million. Approximately two-thirds of that was derived from oil and one-third from gas. For fiscal year 1998 the total severance tax collected was \$63.5 million with 75% from gas and 25% from crude oil. Their relative contribution had been exactly reversed reflecting the significant decline in both the production and price of crude oil.

#### THE ASSUMPTIONS, WHICH JUSTIFIED THE TAX

When the Kansas Legislature began debating the severance tax in the early 1980's the Tax Committee was presented with a series of assumptions, which would justify the passage of a severance tax. The FIRST ASSUMPTION was that the price of crude oil, which had recently climbed to \$35.81 per barrel as a result of supply disruptions in the Middle East, would continue to rise. In a statement before the Senate Assessment and Taxation Committee in 1981, the Secretary of Revenue under Governor John Carlin, predicted the following with regard to the industry's ability to pay a severance tax:

"It is estimated that by the 4<sup>th</sup> quarter of 1981, the average acquisition price for domestic crude oil will increase to \$43 per barrel; that the average per barrel price in 1982 will increase to \$47 per

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barrel; that the average per barrel price in 1982 will be \$47; and in 1983 it will be \$55. (Projections of \$80 to \$100 per barrel prices were sometimes heard in political rhetoric.)

Regarding projected natural gas prices, the Secretary said:

“Underscoring the validity of anticipated increases in natural gas prices was an analysis appearing in the March 17, 1981 edition of the Wall Street Journal. There it was noted that the average price for natural gas under the current decontrol plan would rise to \$2.97 by 1985. At this price, natural gas would still be selling for less than half of the current equivalent price of oil. This suggests that after January 1, 1985, decontrolled natural gas prices would experience a further dramatic increase.”

Both of these predictions were, of course, wrong. The average price from fy1983 through fy2000 is set out on the attachment in column 3 for crude oil and in column 7 for natural gas. Simply compare the first three years of crude oil prices in the 1980's with the last three years in the 1990's using calendar year average prices:

1980	\$37.83	1998	\$11.21
1981	\$36.19	1999	\$17.04
1982	\$31.53	2000	\$26.82
1980-1982 Avg	\$34.96	1998-2000 Avg	\$18.36

While average natural gas prices did not decline as rapidly as crude oil prices, the price of new natural gas fell dramatically from the \$3.00 to \$5.00 range to \$1.00 to \$2.00 range. The decade and a half of sustained low wellhead prices, which followed, has virtually destroyed the basic infrastructure of the Kansas independent exploration and production community.

In addition to ever-higher oil and gas prices, Legislators were provided with a SECOND ASSUMPTION to support the industry's ability to pay this proposed new tax. The second assumption was that most of the burden of this new tax would be passed on to out of state consumers.

In 1974 the Federal Power Commission had issued Opinion 699 which allowed interstate pipeline purchasers of natural gas acquired for resale in the interstate market to pay “production, severance and other similar taxes” in addition to the Area Rate established by the FPC as the maximum lawful price for interstate markets. This opinion was issued because a gas shortage, induced by federally controlled low wellhead prices, was appearing in the interstate systems. It was an attempt by the FPC to encourage more sales to the interstate markets. Since Kansas did not have a severance tax in 1974 the Kansas Corporation Commission requested an Opinion as to

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whether the Kansas ad valorem tax constituted an “other similar tax” under the language of Opinion 699. Again in 1974, the FPC promptly issued Opinion 699-D, which did, in fact, allow the Kansas ad valorem tax to be added to the maximum lawful price, paid to Kansas producers.

The Kansas Legislative Research Department recited Opinion 699-D to the Senate Tax Committee studying the proposed severance tax:

“The Federal Energy Regulatory Commission has ruled that the Kansas property tax is essentially based on production and has allowed this tax to be “passed-on” to purchasers. (February 17, 1981)

Although this recital was correct, two things happened to change the pass through of both the severance and the ad valorem taxes by 1983. First, several interstate pipelines would challenge Opinion 699-D and thirteen years later the FPC, with assistance from a D.C. Circuit Court would reverse Opinion 699-D. Any producer who had received a refund of ad valorem taxes would, in 1996, be required to refund those taxes back to 1983, with interest. The cost is approximately \$400 million. Second, the supply of natural gas for interstate markets increased as a result of the new price structure contained in the Natural Gas Policy Act of 1978. Market conditions would no longer require a purchaser to pay the severance tax to secure the supplies they desired. The tax would simply be deducted from the purchase price at the wellhead.

Thus, Kansas producers were forced to absorb, not only the new severance tax, but to refund the ad valorem tax to 1983, with interest. This potential refund obligation remains as a serious impediment to exploration and production in Kansas to this day. The second major assumption behind passage of the severance tax proved to be very wrong.

The THIRD ASSUMPTION, which is no longer true of the industry as it was in 1981, is that much of the state’s production is owned by “big oil” headquartered out-of-state. Thus an additional tax would be exported if paid by out-of-state producers.

The Kansas Legislative Research Division, February 23, 1981, reported:

“The fact that a producer might not be able to pass on the tax does not mean that it will be borne by Kansans because much of the natural gas production in Kansas is owned by out-of-state corporations and individuals. The Department of Revenue has estimated that in 1978 out-of-state corporations accounted for 84 percent of total state gas production”.

It went on to say that:

“...no estimate can be made as to the total amount of a severance tax on crude oil...that might be paid by in-state or out-of-state consumers. However, the Department of Revenue has estimates that

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42.6 percent of the Kansas oil production is owned by out-of-state companies”

Since the early 80's, this Kansas industry has experienced a dramatic shift in ownership away from major oil companies and to independent Kansas operators. While precise statistics are not available, we know that since 1981, nearly all major out-of-state oil companies have sold their interests to Kansas producers. These divestitures have included those by Texaco, Mobil, Amoco and, Phillips Petroleum Company. Most recently the giant El Dorado Oil Field, which fueled two world wars, with wells once capable of producing 20,000 barrels of oil per day, was sold by Cities Service Oil Company (now OXY-USA) to Vess Oil Company, a small independent, headquartered in Wichita, Kansas.

Today, with the exception of the Hugoton gas field area, Kansas is predominately the province of independent producers, many of whom are quite small, independent, family owned operations. These small producers cannot and do not pass the costs of the severance and ad valorem taxes forward to consumers, they must be absorbed by producers, explorers and developers of oil and gas properties. The third assumption, while valid for a time during periods of oil and gas price regulation by the federal government, has not been true since the severance tax was passed in Kansas.

Well intentioned though policymakers may have been at the time of imposition of the severance tax, it is clear with hindsight, that the several fundamental assumptions underlying passage of tax were wrong and that subsequent regulatory and marketplace events have resulted in an environment dramatically different to that envisioned. Yet the taxes imposed on the basis of that set of flawed assumptions remain in place.

#### THE U.S. LOWER 48 AND THE KANSAS OIL AND GAS INDUSTRY

Following passage of the severance tax in 1983 the Kansas oil and gas industry began to rapidly decline. The price crash of the mid 1980's, escalating costs and taxes, led to bankruptcies and consolidations. A declining resource base in an intensively explored and mature producing province resulted in the migration of major oil producers to more potential exploratory areas, primarily offshore and overseas. Today in America, independents drill 85% of all exploratory wells in the lower 48 states.

Likewise, Kansas oil fields have been left to small independent, largely family owned, producers. Today in Kansas, independents produce nearly 90 percent of Kansas' crude oil from

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low volume, price and cost sensitive wells. Still thousands of these marginally economic wells provide an enormous national resource. These small wells across America, known as stripper wells, provide approximately 27% of total U.S. production. In Kansas 98.5% of the wells average less than 15 barrels of oil per day but provide over 75% of Kansas' total production. The average Kansas oil well produces 2.4 barrels per day.

Attachment A includes a series of nineteen charts compiled by the Independent Petroleum Association of America. These charts reflect statistics primarily relating to the exploration and production component of the oil and gas industry in the United States. These charts reveal a serious decline in every indicator of exploration and production activity beginning in 1985, rapidly accelerating in 1986, and continuing through 1999. The number of seismic crews, drilling operators, exploratory wells drilled, active rotary rigs, well completions, footage drilled, new reserves added, proved reserves and industry employment are all dramatically lower in 1999 from 1980-1984 levels. This enormous loss of the domestic infrastructure, over 3,300 rotary rigs and over 400,000 employees, left America extremely vulnerable to its growing dependence on foreign crude and sudden dramatic price spikes. Today America imports over 55% of the crude oil it consumes.

The Kansas oil and gas exploration and production industry has followed national trends. Attachment B provides a snapshot of the industry as it existed in Kansas in 1982 and Attachment C allows a comparison of the industry in Kansas in 1998. The number of employees engaged in the extraction component of the oil and gas industry declined from 17,108 in 1982 to 5,953 in 1998. Active rotary rigs operating in Kansas declined from 157 in 1982 to an average of 13 in 1998. The wellhead price of crude will fall from \$31 per barrel to \$12 per barrel. Kansas oil producers, like Kansas farmers, can only take the posted price. Like the price of wheat posted in the elevator window by Cargill, the price of crude is posted by the purchasers.

Today the price of crude oil at the wellhead is actually lower than it was in 1983 when the severance tax was passed. The price of gasoline at the pump, however, is higher. This causes consumer confusion and often hostile or negative reaction towards the industry. How can this happen? Attachments D and E reflect the answer. In 1983 the wellhead price of crude oil was \$26.19 per barrel, the cost of crude oil in a gallon of gasoline was 59.18 cents and the price at the pump was \$1.219. By 1997 the wellhead price of crude oil was down to \$17.23 per barrel, the

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cost of crude oil in a gallon of gasoline was down to 38.93 cents and the price at the pump was up to \$1.234. The answer, of course, is found in the columns labeled taxes and tax as % of pump price. Motor fuel taxes have nearly quadrupled. The Kansas motor fuel tax was increased from 8 cents per gallon to 21 cents per gallon, as did the federal tax. Federal and State motor fuel taxes now take nearly 40% of the consumer's dollar spent at the pump.

Today Kansas consumes nearly twice as much crude oil as it produces. Though Kansas remains a net exporter of natural gas, Kansas is a net importer of crude oil.

When the Arthur D. Little and Company was commissioned in 1990 to study the oil and gas industry in Kansas they reached the following conclusions:

The industry in Kansas is characterized by a dual condition-that of Eastern/Central Oil and Western Gas. The Eastern/Central Oil is described as follows:

- 1) a mature, low productivity, short-life resource,
- 2) economically marginal,
- 3) threatened by low prices,
- 4) declining reserves and production, and
- 5) operated predominately by independents.

The Western Gas is described as:

- 1) a giant, long-lived field,
- 2) with additional potential via infill and deep rights,
- 3) historically disadvantaged by federally regulated low wellhead prices
- 4) operated predominately by major companies.

More recently the life expectancy of the giant Hugoton Gas Field has been reviewed, as declining wellhead pressures have created concern. Production declines may follow but production levels today are similar to production levels in the first half of the 1980's. Crude oil production in Kansas, however, has been on a steady decline since the first half of the 1980's.

#### SUMMARY AND REQUEST FOR CHANGE IN TAX POLICY

The severance tax on crude oil should be repealed in its entirety for the following reasons:

1. History has proven the fundamental assumptions justifying passage of the severance tax in 1983 were wrong. First, the price of crude oil did not go from \$35 in 1981 to \$55 per barrel in 1983 as projected. After a decade and a half of prices below \$18 per barrel the price today is \$25

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per barrel.

Second, the cost of the severance tax cannot be passed through to consumers as legislators believed in 1981. Producers must absorb, not only the cost of the severance tax, but the cost of ad valorem property taxes as well, and,

Third, Kansas' oil is not the domain of out of state "big oil" companies who would bear the brunt of the severance tax on crude oil. While the major companies maintain a significant presence in the Hugoton gas field, Kansas crude oil production is dominated by small, Kansas based, independent producers.

Clearly, the exploration and production component of the industry did not have the ability to pay the severance tax and the property tax as the legislature believed in 1981. Following passage of the tax the basic infrastructure of the exploration and production component of the Kansas oil and gas industry was decimated by rapid declines in wellhead prices in the early 1980's and a decade and a half of low wellhead prices which followed. Drilling rigs have been scrapped or cannibalized and trained employees have left the industry for more stable employment.

2. The exploration and production component of the oil and gas industry will require enormous capital investment to restore the infrastructure of both machinery and equipment and personnel. Until the domestic U.S. exploration and production industry is restored the country and the state of Kansas will remain vulnerable to sudden price spikes to which industry cannot respond. The exploration and production component of the industry is not equipped or staffed to respond to supply shortages. The history of crude oil prices and today's market price of crude oil are not sufficient to attract the capital and personnel necessary to rebuild the infrastructure.

3. The Kansas resource base is price and cost sensitive. While the price of crude oil will be set in a world market an adjustment in Kansas tax policy can significantly reduce costs. This should be done immediately.

4. The rate of return on oil and gas exploration investments is not sufficient to attract risk capital. Today the State of Kansas and its taxing units take 9.8% of the wellhead value of crude oil and gas production without capital investment. The explorationist will get a rate of return that is less than 10% while putting substantial capital at risk. The Kansas exploration and production industry must compete with other industries for risk capital whose effective tax rates are much lower, in the range of 2.75%. This is not a level playing field and reflects the punitive tax policies

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of a bygone era. The Governor of Kansas said it best in a speech to the Interstate Oil and Gas Compact Commission:

“Oil well taxes were created at a time when production was flush and virtually every well was profitable. As time passed and the well production dropped, production costs increased. Unfortunately, severance taxes in many states are blind to the decreasing profitability that is experienced by every well. Today it is possible for some states to make a dollar per barrel in taxes while the operator of the well only makes 25 cents in profit. This is a situation not envisioned when these taxes were created.”

5. The severance tax collections on crude oil have declined dramatically, from \$71 million in FY 1984 to \$15 million in FY 2000, and have become counterproductive. Administration and compliance with the tax is very costly.

6. The severance tax is an enormous disincentive to exploration and production. Many exemptions have been passed to prevent waste from the premature abandonment of marginal wells. Several exemptions have been passed to remove the disincentives to exploring for new fields or for making investments in production enhancements. While these exemptions have been helpful they have not been sufficient to reverse the trends in Kansas.

#### CONCLUSION

The oil and gas industry should not and cannot be immune from fundamental reform of its taxation. Tax policies are not cast in concrete. We set out methods of taxation not only to raise revenue but to achieve certain policy objectives and to reach an appropriate balance between fiscal needs and the health of the industry being taxed.

In a recent publication authored by David M. Garlick, noted energy analyst and Director of Policy and Research for the Railroad Commission of Texas, (retired) stated:

“It is the author’s opinion that severance taxes and gross production taxes will be eliminated in many producing states in the foreseeable future.”

Kansas oil and gas producers were hit by a series of punitive taxes in the late 1970s and the early 1980s, which accelerated the demise of a productive industry. Today, in Kansas, oil production and exploration is an endangered species, and excessive taxation can no longer be justified. We must recognize its decline and establish policies, which would encourage the industry and protect and conserve the remaining resources available. This industry can survive in Kansas and it can have a long and useful life but it cannot be the subject of punitive and extraordinary taxation. Time is literally running out; the need for change has almost passed. Repeal of the

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severance tax on crude oil and fairness in taxation across all industries will return far more to the State of Kansas than the tax itself.

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State of the U.S. Oil and  
Natural Gas Industry

**EMPLOYMENT:** Preliminary employment data for the exploration and production sector of the oil and natural gas as of February 1999, stood at 288,400 employees, compared to 334,700 in the same month last year. In 1998, the U.S. averaged 325,900 employees, compared to 334,600 for 1997. Since the early 1980s, 520,000 jobs relating to the oil and natural gas industry have been lost.

**CRUDE OIL IMPORTS:** Imports of crude oil and petroleum products in 1998 averaged 10.3 million barrels per day, the highest level ever of imports. This represents a 220,000 b/d increase over 1997 levels of 10.16 MMb/d. Imports have continued to constitute over 53 percent of domestic supply of petroleum products. Five years ago, we depended on imports to supply 45 percent of our needs. Imports of refined products averaged 1.83 MMb/d in 1998 down from 1.93 MMb/d in 1997. Crude oil imports have increased to 8.55 MMb/d in 1998, up from 8.22 MMb/d in 1997. U.S. petroleum imports (crude & products) in January were 10.18 MMb/d; imports in the same month last year were 9.89 MMb/d.

**NATURAL GAS IMPORTS:** Natural gas imports for 1998 averaged 3.13 Trillion cubic feet (Tcf), a four-percent increase over 1997. They have been rising steadily and rapidly since 1986. Canada continued its role as the major supplier of gas imported into the U.S., supplying the United States with 3.02 Tcf in 1997.

**CRUDE OIL PRODUCTION:** Crude oil production in 1998 fell to an average 6.24 MMb/d, compared to 6.45 MMb/d in 1997, representing a 209,000 b/d decrease. Crude oil production in the lower 48 states fell to 5.06 MMb/d, while Alaskan production continued its decline to 1.17 MMb/d. U.S. crude oil production in February averaged 5.94 MMb/d, its lowest level in nearly fifty years; compared to 6.38 MMb/d during the same month last year.

**NATURAL GAS PRODUCTION:** Total dry natural gas production in 1998 averaged 18.97 Tcf, up from 18.90 Tcf for 1997. This was attributed to a significant increase in production in the Gulf of Mexico as well as from Arkansas and Colorado. In 1998, gross withdrawals of natural gas reached an all time high of 24.5 Tcf, topping the 1973 level of 24.0 Bcf. U.S. dry gas production in January was 1.61 Tcf; production in the same month last year was 1.61 Tcf.

**ROTARY RIG ACTIVITY:** In 1998, the rotary rig count averaged 827 rigs for the United States, a decrease of 116 over one year ago. The rotary rig count has dropped to an all time low of 502 through March 26, 1999. Twenty-two percent of the rigs were drilling for oil, while seventy-eight percent were drilling for gas.

**WELL COMPLETIONS:** In 1998, total well completions showed a decline of 13 percent to 24,884 over 1997. There were 10,711 gas well completions; 8,720 oil well completions and 5,453 dry holes.

**RESERVES:** In 1997, crude oil reserves increased 2.4 percent to 22,546 million barrels. Natural gas liquids 1.9 percent to 7,973 million barrels. Dry natural gas reserves increased 0.4 percent to 167.2 Tcf. The 1997 reserve/production ratios stood at 9.6 for crude oil and 8.8 for natural gas.

Sources: DOE, API, Baker Hughes, BLS

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**ATTACHMENT "A"**

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## 1. EXPLORATION ACTIVITY

Year	Seismic Crew Count	Exploratory Wells Drilled					Total New-Field Wildcat Wells
		Oil	Gas	Dry	Total	% Dry	
1980	5,915	1,777	2,085	9,008	12,870	70.0	7,332
1981	8,172	2,661	2,522	12,247	17,430	70.3	9,151
1982	7,060	2,481	2,172	11,229	15,882	70.7	7,386
1983	5,681	2,129	1,654	10,062	13,845	72.7	6,057
1984	5,931	2,334	1,588	11,216	15,138	74.1	6,528
1985	4,539	1,724	1,283	9,201	12,208	75.4	5,630
1986	2,355	993	749	5,414	7,156	75.7	3,484
1987	2,113	894	708	5,301	6,903	76.8	3,515
1988	2,161	817	704	4,788	6,350	75.4	3,271
1989	1,587	604	707	4,024	5,336	75.4	2,644
1990	1,493	649	684	3,813	5,146	74.1	2,685
1991	1,251	602	543	3,312	4,457	74.3	2,195
1992	847	504	429	2,541	3,474	73.1	1,762
1993	952	509	554	2,524	3,587	70.4	1,683
1994	1,087	576	740	2,445	3,761	65.0	1,613
1995	1,253	560	578	2,246	3,384	66.4	1,605
1996	1,307	511	590	2,206	3,307	66.7	1,676
1997	1,336	467	536	2,202	3,205	68.7	1,757
1998	1,566	330	546	1,762	2,638	66.8	1,444
1999	1,125	186	636	1,215	2,037	59.6	1,102

## 2. DRILLING

Year	Rotary Rigs Active	Total Well Completions				Total Excl. Service	Total Footage Drilled (Mill. Ft.)
		Oil	Gas	Dry	Total		
1980	2,912	32,120	17,132	20,234	69,486	311.4	
1981	3,970	42,520	19,742	26,972	89,234	406.5	
1982	3,105	39,252	18,810	25,827	83,889	375.4	
1983	2,229	37,396	14,505	23,837	75,738	316.7	
1984	2,429	44,472	14,962	25,549	84,983	368.8	
1985	1,980	36,458	12,917	21,431	70,806	316.8	
1986	964	18,598	8,055	12,362	39,015	177.6	
1987	936	16,441	8,114	11,698	36,253	163.9	
1988	936	13,503	8,434	10,291	32,228	154.9	
1989	869	10,424	9,493	8,475	28,392	135.0	
1990	1,010	12,342	11,006	8,604	31,952	153.8	
1991	860	12,044	9,564	7,743	29,351	143.2	
1992	722	9,140	8,288	6,279	23,707	121.6	
1993	754	9,009	10,169	6,544	25,722	136.9	
1994	755	7,446	9,885	5,499	22,830	128.6	
1995	723	8,459	8,738	5,374	22,571	122.8	
1996	779	9,490	9,787	5,583	24,860	134.8	
1997	943	11,698	11,454	6,111	29,263	159.8	
1998	827	7,962	11,422	5,141	24,525	138.2	
1999	625	5,031	10,213	3,750	18,994	104.6	

## 3. OPERATORS & PRODUCING WELLS

Year	Drilling Operators of Record	Crude Oil		Natural Gas		Total Producing Wells
		Producing Wells	% of Total	Producing Wells	% of Total	
1980	10,059	543,510	75.6	175,213	24.4	718,723
1981	12,381	557,009	74.6	189,609	25.4	746,618
1982	13,014	580,142	74.0	203,663	26.0	783,805
1983	12,951	603,290	73.8	214,354	26.2	817,644
1984	12,815	620,807	73.3	226,077	26.7	846,884
1985	11,370	646,626	72.5	245,765	27.5	892,391
1986	8,335	628,690	71.5	250,510	28.5	879,200
1987	7,048	620,181	71.0	253,856	29.0	874,037
1988	6,095	623,587	70.9	256,004	29.1	879,591
1989	5,231	606,881	69.9	261,225	30.1	868,106
1990	5,361	602,439	69.2	267,891	30.8	870,330
1991	5,138	610,204	69.1	273,299	30.9	883,503
1992	4,337	594,189	67.9	280,899	32.1	875,088
1993	4,172	583,879	67.1	286,161	32.9	870,040
1994	3,612	581,657	66.9	287,845	33.1	869,502
1995	3,404	574,483	66.1	294,229	33.9	868,712
1996	3,398	574,419	65.4	303,601	34.6	878,020
1997	3,453	573,070	65.4	303,597	34.6	876,667
1998	2,918	562,148	64.5	309,005	35.5	871,153
1999	2,087	554,385	64.4	305,978	35.6	860,363

## 4. STRIPPER WELLS

Year	Producing Wells		Production		Avg. Output per Well (b/d)	Abandonments	Reserves (Bill. Bbls.)
	Stripper Wells	% U.S. Wells	Thous. b/d	% U.S. Output			
1980	395,176	72.7	1,096	12.7	2.8	6,614	5.2
1981	409,539	73.5	1,168	13.1	2.9	7,215	4.4
1982	416,493	71.8	1,211	14.0	2.9	9,426	4.5
1983	441,501	73.2	1,266	14.6	2.9	11,032	4.6
1984	452,543	72.9	1,266	14.3	2.8	14,170	4.5
1985	458,447	70.9	1,249	14.0	2.7	16,024	4.2
1986	460,429	73.2	1,231	14.0	2.7	19,233	4.0
1987	451,787	72.8	1,224	14.7	2.7	18,241	3.9
1988	454,150	72.8	1,210	14.9	2.7	17,423	3.8
1989	452,589	74.6	1,060	13.9	2.3	16,107	3.7
1990	463,854	77.0	1,050	14.3	2.3	17,235	3.6
1991	462,823	75.8	1,034	13.9	2.2	17,584	3.4
1992	453,277	76.3	1,009	14.7	2.2	16,211	3.3
1993	452,248	77.5	975	14.2	2.2	16,914	3.0
1994	442,500	76.1	931	14.2	2.1	17,896	2.9
1995	433,048	75.4	910	14.0	2.1	16,389	2.8
1996	428,842	74.7	886	15.0	2.1	16,674	2.5
1997	431,552	75.3	884	15.0	2.1	15,037	2.5
1998	419,280	74.6	866	13.9	2.1	13,912	2.4
1999	422,730	76.3	859	13.8	2.0	11,227	2.3

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### 5. NEW RESERVES ADDED

Year	Liquid Hydrocarbons (Mill. Bbls.)			Natural Gas (Tcf)	Crude Oil Reserves Per New Oil Well (Bbls.)	Nat. Gas Reserves Per New Gas Well (MMcf)
	Crude Oil	NGL	Total			
1980	2,970	844	3,814	16.7	92,466	975
1981	2,570	1,081	3,651	21.5	60,442	1,089
1982	1,382	874	2,256	17.3	35,208	920
1983	2,897	1,405	4,302	14.5	77,468	1,000
1984	3,748	518	4,266	14.4	84,278	962
1985	3,022	1,054	4,076	11.9	82,890	921
1986	1,446	959	2,405	13.8	77,750	1,713
1987	3,240	729	3,969	11.7	197,068	1,442
1988	2,380	845	3,225	-2.5	176,257	-296
1989	2,262	288	2,550	16.1	216,999	1,696
1990	2,258	553	2,811	19.5	182,953	1,772
1991	940	634	1,574	14.9	78,047	1,558
1992	1,509	760	2,269	15.4	165,098	1,858
1993	1,551	559	2,110	15.2	172,161	1,495
1994	1,768	739	2,507	19.7	237,443	1,993
1995	2,107	1,020	3,127	19.3	249,084	2,206
1996	1,839	1,274	3,113	20.1	193,783	2,054
1997	2,667	1,013	3,680	19.9	227,988	1,737
1998	479	384	863	15.5	60,191	1,357
1999	2,683	1,278	3,961	22.3	533,294	2,183

### 6. PROVED RESERVES

As of Dec. 31st	Liquid Hydrocarbons (Mill. Bbls.)			Natural Gas-Dry (Tcf)	Reserve/Production Ratio		
	Crude Oil	NGL	Total Liquid		Crude Oil	Total Liquid	Natural Gas
1980	29,805	6,728	36,533	199.0	10.0	9.9	10.6
1981	29,426	7,068	36,494	201.7	10.0	9.9	10.8
1982	27,858	7,221	35,079	201.5	9.4	9.6	11.5
1983	27,735	7,901	35,636	200.3	9.2	9.5	12.7
1984	28,446	7,643	36,089	197.5	9.4	9.5	11.5
1985	28,416	7,944	36,360	193.4	9.3	9.6	12.1
1986	26,889	8,165	35,054	191.6	9.0	9.4	12.3
1987	27,256	8,147	35,403	187.2	9.5	9.8	11.6
1988	26,825	8,238	35,063	168.0	9.5	9.8	10.1
1989	26,501	7,769	34,270	167.1	10.2	10.3	9.8
1990	26,254	7,586	33,840	169.3	10.5	10.5	9.8
1991	24,682	7,464	32,146	167.1	9.8	9.8	9.7
1992	23,745	7,451	31,196	165.0	9.7	9.7	9.5
1993	22,957	7,222	30,179	162.4	9.8	9.6	9.1
1994	22,457	7,170	29,627	163.8	9.2	11.4	8.7
1995	22,351	7,399	29,750	165.1	9.3	11.5	8.9
1996	22,017	7,823	29,840	166.4	9.3	11.7	8.9
1997	22,546	7,973	30,519	167.2	9.6	12.0	8.8
1998	21,034	7,524	28,558	164.0	9.2	11.7	8.8
1999	21,765	7,906	29,671	167.4	10.1	11.7	9.0

### 7. PETROLEUM PRODUCTION

Year	Crude Oil	NGL	Total Production	Average Crude Oil Per Well	% of U.S. Energy Production		
					Petroleum	Natural Gas	Total
1980	8,597	1,573	10,170	15.8	28.2	34.2	62.4
1981	8,572	1,609	10,181	15.4	28.2	34.2	62.4
1982	8,649	1,550	10,199	14.9	28.7	32.0	60.7
1983	8,688	1,559	10,247	14.4	30.0	30.6	60.6
1984	8,879	1,630	10,509	14.3	28.6	30.7	59.3
1985	8,971	1,609	10,580	13.9	29.2	29.6	58.8
1986	8,680	1,551	10,231	13.8	28.6	29.0	57.6
1987	8,349	1,595	9,944	13.5	27.2	29.8	57.0
1988	8,151	1,625	9,776	13.1	26.1	30.0	56.1
1989	7,613	1,546	9,159	12.5	24.4	30.3	54.7
1990	7,355	1,559	8,914	12.2	23.0	30.3	53.3
1991	7,417	1,659	9,076	12.2	23.2	30.7	53.9
1992	7,171	1,697	8,868	12.1	22.8	30.9	53.7
1993	6,847	1,736	8,583	11.7	22.1	32.5	54.6
1994	6,662	1,727	8,389	11.5	20.9	32.3	53.2
1995	6,560	1,762	8,322	11.4	20.4	32.0	52.4
1996	6,465	1,830	8,295	11.3	20.0	32.0	52.0
1997	6,452	1,817	8,269	11.3	20.0	32.0	52.0
1998	6,252	1,759	8,011	11.1	19.0	31.0	50.0
1999	5,881	1,850	7,731	10.6	18.0	32.0	50.0

### 8. PETROLEUM CONSUMPTION

Year	Petroleum Demand (Thous. b/d)			% of U.S. Energy Consumption		Energy/GDP Ratio
	Domestic	Export	Total	Petroleum	Natural Gas	(Thous. Btu Per 1996 \$)
1980	17,056	544	17,600	45.0	26.9	15.6
1981	16,058	595	16,653	43.2	26.9	14.8
1982	15,296	815	16,111	42.7	26.1	14.5
1983	15,231	739	15,970	42.6	24.6	13.8
1984	15,726	722	16,448	41.9	25.0	13.7
1985	15,726	781	16,507	41.8	24.1	13.0
1986	16,281	785	17,066	43.3	22.5	12.6
1987	16,665	764	17,429	42.7	23.1	12.6
1988	17,283	815	18,098	42.7	23.1	12.6
1989	17,325	859	18,184	42.0	23.8	12.4
1990	16,988	857	17,845	41.3	23.7	12.2
1991	16,714	1,001	17,715	40.5	24.2	12.2
1992	17,033	950	17,983	40.7	24.4	12.0
1993	17,237	1,003	18,240	40.2	24.7	11.9
1994	17,718	942	18,660	40.4	24.8	11.7
1995	17,725	949	18,674	39.6	25.3	11.6
1996	18,309	981	19,290	39.7	24.9	11.6
1997	18,620	1,003	19,623	40.0	24.8	11.1
1998	18,917	945	19,862	40.5	24.0	10.7
1999	19,519	940	20,459	40.9	23.7	10.5

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### 9. PETROLEUM SUPPLY

Year	Imports			Other Supply	Total Supply	Imports as % of Demand
	Crude Oil	Refined Products	Total (excl. SPR)			
	(Thous. b/d)					
1980	5,263	1,646	6,909	616	17,695	40.5
1981	4,396	1,599	5,996	391	16,568	37.3
1982	3,488	1,625	5,113	478	15,790	33.4
1983	3,329	1,722	5,051	503	15,801	33.2
1984	3,426	2,011	5,437	587	16,533	34.6
1985	3,201	1,866	5,067	640	16,287	32.2
1986	4,178	2,045	6,224	763	17,218	38.2
1987	4,674	2,004	6,678	768	17,390	40.1
1988	5,107	2,295	7,402	840	18,018	42.8
1989	5,843	2,217	8,061	865	18,085	46.5
1990	5,894	2,123	8,018	1,004	17,936	47.2
1991	5,782	1,844	7,627	1,046	17,749	45.6
1992	6,083	1,805	7,888	1,114	17,870	46.3
1993	6,787	1,833	8,620	1,152	18,355	50.0
1994	7,063	1,933	8,996	1,291	18,676	50.8
1995	7,230	1,605	8,835	1,517	18,674	49.8
1996	7,508	1,971	9,479	1,516	19,290	51.8
1997	8,225	1,936	10,161	1,193	19,623	54.6
1998	8,706	2,002	10,708	1,143	19,862	56.6
1999	8,731	2,121	10,852	1,876	20,459	55.6

### 11. NATURAL GAS

Year	Marketed Production (Wet)	Dry Gas Production	Imports	Exports	Total Supply	Consumption
	1980	20,180	19,403	985	49	21,875
1981	19,956	19,181	904	59	21,691	19,404
1982	18,582	17,820	933	52	20,525	18,001
1983	16,884	16,094	918	55	18,712	16,835
1984	18,304	17,466	843	55	20,300	17,951
1985	17,270	16,454	950	55	19,499	17,281
1986	16,859	16,059	750	61	18,266	16,221
1987	17,433	16,621	993	54	19,176	17,211
1988	17,918	17,103	1,294	74	20,315	18,030
1989	18,095	17,311	1,382	107	21,435	18,801
1990	18,594	17,810	1,532	86	21,302	18,716
1991	18,532	17,698	1,773	129	21,836	19,035
1992	18,712	17,840	2,138	216	22,360	19,544
1993	18,982	18,095	2,350	140	23,253	20,279
1994	19,710	18,821	2,624	162	23,666	20,708
1995	19,506	18,599	2,841	154	24,301	21,581
1996	19,751	18,793	2,937	153	25,031	21,967
1997	19,866	18,902	2,994	157	24,916	21,959
1998	19,646	18,708	3,152	159	24,326	21,262
1999	19,611	18,660	3,586	163	24,079	21,361

### 10. PETROLEUM IMPORTS BY ORIGIN

Year	OPEC Sources		Arab OPEC		Persian Gulf		Total
	Thous. b/d	% Total Imports	Thous. b/d	% Total Imports	Thous. b/d	% Total Imports	
	(Thous. b/d incl. SPR)						
1980	4,300	62.2	2,007	29.0	1,519	22.0	6,909
1981	3,323	55.4	1,530	25.5	1,219	20.3	5,996
1982	2,146	42.0	866	16.9	696	13.6	5,113
1983	1,832	36.3	682	13.5	442	8.8	5,051
1984	2,049	37.7	829	15.2	506	9.3	5,437
1985	1,830	36.1	498	9.8	311	6.1	5,067
1986	2,837	45.6	1,183	19.0	912	14.7	6,224
1987	3,060	45.8	1,372	20.2	1,077	16.1	6,678
1988	3,520	47.6	1,841	24.9	1,541	20.8	7,402
1989	4,140	51.4	2,130	26.4	1,861	23.1	8,061
1990	4,296	53.6	2,244	28.0	1,966	24.5	8,018
1991	4,092	53.7	2,098	27.5	1,845	24.2	7,627
1992	4,092	51.9	1,984	25.2	1,778	22.5	7,888
1993	4,273	49.6	2,002	23.2	1,782	20.7	8,620
1994	4,247	47.2	1,971	21.9	1,728	19.2	8,996
1995	4,002	45.3	1,807	20.5	1,573	17.8	8,835
1996	4,211	44.4	1,860	19.6	1,604	16.9	9,479
1997	4,569	45.0	2,040	20.1	1,755	17.3	10,162
1998	4,905	45.8	2,426	22.7	2,136	19.9	10,708
1999	4,953	45.6	2,723	25.1	2,464	22.7	10,852

### 12. NATURAL GAS PRICES

Year	Wellhead		City Gate	End Use			
	Current \$	Current 1999		Residential	Commercial	Industrial	Utilities
	(\$/Mcf)						
1980	1.59	2.90	N/A	3.68	3.39	2.56	2.27
1981	1.98	3.31	N/A	4.29	4.00	3.14	2.89
1982	2.46	3.88	N/A	5.17	4.82	3.87	3.48
1983	2.59	3.92	N/A	6.06	5.59	4.18	3.58
1984	2.66	3.88	3.95	6.12	5.55	4.22	3.70
1985	2.51	3.55	3.75	6.12	5.50	3.95	3.55
1986	1.94	2.69	3.22	5.83	5.08	3.23	2.43
1987	1.67	2.25	2.87	5.54	4.77	2.94	2.32
1988	1.69	2.20	2.92	5.47	4.63	2.95	2.34
1989	1.69	2.12	3.01	5.64	4.74	2.96	2.43
1990	1.71	2.06	3.03	5.80	4.83	2.93	2.38
1991	1.64	1.91	2.90	5.82	4.81	2.69	2.18
1992	1.74	1.99	3.01	5.89	4.88	2.84	2.36
1993	2.04	2.27	3.21	6.16	5.22	3.07	2.61
1994	1.85	2.02	3.07	6.41	5.44	3.05	2.28
1995	1.55	1.65	2.78	6.06	5.05	2.71	2.02
1996	2.17	2.27	3.34	6.34	5.40	3.42	2.69
1997	2.32	2.38	3.66	6.94	5.80	3.59	2.78
1998	1.94	1.97	3.07	6.82	5.48	3.14	2.40
1999	2.08	2.08	3.11	6.62	5.27	3.04	2.62

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### 13. OIL & COMPOSITE PRICES

Year	Crude Wellhead		Refiner Acquisition Cost			Oil/Gas Composite	
	Current \$	Constant 1999 \$	U.S.	Import	Composite	Current \$	Constant 1999 \$
	(\$/Bbl.)						
1980	21.59	39.42	24.23	33.89	28.07	14.52	26.51
1981	31.77	53.08	34.33	37.05	35.24	20.36	34.01
1982	28.52	44.93	31.22	33.55	31.87	20.57	32.41
1983	26.19	39.64	28.87	29.30	28.99	20.13	30.47
1984	25.88	37.77	28.53	28.88	28.63	19.99	29.18
1985	24.09	34.09	26.66	26.99	26.75	18.88	26.72
1986	12.51	17.33	14.82	14.00	14.55	11.50	15.93
1987	15.40	20.73	17.76	18.13	17.90	12.12	16.31
1988	12.58	16.38	14.74	14.56	14.67	10.76	14.01
1989	15.86	19.89	17.87	18.08	17.97	12.18	15.27
1990	20.03	24.17	22.59	21.76	22.22	13.96	16.85
1991	16.54	19.31	19.33	18.70	19.06	12.24	14.29
1992	15.99	18.27	18.63	18.20	18.43	12.23	13.98
1993	14.25	15.86	16.67	16.14	16.41	12.36	13.75
1994	13.19	14.38	15.67	15.51	15.59	11.27	12.28
1995	14.62	15.60	17.33	17.14	17.23	10.86	11.59
1996	18.46	19.34	20.77	20.64	20.71	14.36	15.05
1997	17.23	17.71	19.61	18.53	19.04	14.36	14.76
1998	10.87	11.03	13.18	12.04	12.52	10.63	10.79
1999	15.56	15.56	17.82	17.25	17.47	12.84	12.84

### 15. WELLHEAD REVENUES & TAXES

Year	Wellhead Revenues (Mill. \$)					Severance and Production Taxes Paid (Mill. \$)
	Crude Oil	% of Total	Natural Gas	% of Total	Total	
1980	67,747	67.9	32,086	32.1	99,834	3,865
1981	99,401	71.6	39,513	28.4	138,914	6,418
1982	90,034	66.3	45,712	33.7	135,746	7,464
1983	83,052	65.5	43,730	34.5	126,781	7,265
1984	83,873	63.3	48,689	36.7	132,561	7,192
1985	78,881	64.5	43,348	35.5	122,228	7,002
1986	39,634	54.8	32,706	45.2	72,341	5,360
1987	46,930	61.7	29,113	38.3	76,043	3,998
1988	37,427	55.3	30,281	44.7	67,708	4,002
1989	44,071	59.0	30,581	41.0	74,651	3,821
1990	53,772	62.8	31,796	37.2	85,568	4,621
1991	44,777	59.6	30,392	40.4	75,170	4,625
1992	41,852	56.2	32,559	43.8	74,411	4,083
1993	35,613	47.9	38,723	52.1	74,336	4,153
1994	32,073	46.8	36,464	53.2	68,537	3,404
1995	35,006	53.7	30,234	46.3	65,240	3,177
1996	43,561	50.4	42,860	49.6	86,420	3,271
1997	40,576	46.8	46,089	53.2	86,665	3,781
1998	24,805	39.4	38,113	60.6	62,918	2,719
1999	33,401	45.0	40,791	55.0	74,191	2,373

### 14. PETROLEUM PRODUCT PRICES

Year	Wholesale Prices					Retail Gasoline		
	Gasoline	Kerosene	Distillate	Resid. Fuel	Average 4 Products	Excl. Taxes	Incl. Taxes	
	(\$/Gal.)					(\$/Bbl.)	(\$/Gal.)	
1980	0.87	0.80	0.78	0.44	0.73	30.56	1.08	1.19
1981	1.02	1.01	0.97	0.61	0.89	37.28	1.20	1.33
1982	0.95	0.97	0.92	0.58	0.83	34.97	1.12	1.26
1983	0.87	0.85	0.80	0.57	0.77	32.31	1.03	1.22
1984	0.81	0.85	0.80	0.59	0.74	31.29	1.00	1.21
1985	0.81	0.82	0.77	0.56	0.73	30.69	0.95	1.16
1986	0.48	0.50	0.45	0.36	0.44	18.47	0.70	0.92
1987	0.53	0.57	0.52	0.45	0.51	21.37	0.72	0.95
1988	0.50	0.51	0.46	0.39	0.46	19.41	0.71	0.95
1989	0.59	0.61	0.56	0.41	0.53	22.38	0.77	1.01
1990	0.72	0.73	0.68	0.51	0.65	27.38	0.88	1.14
1991	0.64	0.65	0.60	0.41	0.57	23.78	0.84	1.15
1992	0.61	0.63	0.58	0.42	0.55	23.02	0.78	1.11
1993	0.55	0.60	0.55	0.40	0.51	21.35	0.77	1.11
1994	0.53	0.58	0.53	0.43	0.50	21.04	0.74	1.11
1995	0.56	0.58	0.54	0.47	0.53	22.33	0.77	1.14
1996	0.63	0.73	0.70	0.58	0.66	27.72	0.85	1.23
1997	0.66	0.66	0.62	0.54	0.62	26.12	0.83	1.22
1998	N/A	N/A	N/A	N/A	N/A	N/A	0.66	1.06
1999	N/A	N/A	N/A	N/A	N/A	N/A	0.76	1.16

### 16. FINANCIAL STATISTICS

Year	Rate of Return %		Exploration & Development Outlays (Mill. \$)			Wages (\$/Hour)	
	Oil & Gas	All Mfg.	Larger Firms	Independents	Total	Oil & Gas	All Mfg.
	1980	21.7	12.2	26,235	14,175	40,410	9.70
1981	17.8	12.9	31,992	23,698	55,690	10.78	7.99
1982	12.5	9.7	30,330	23,387	53,717	11.81	8.50
1983	12.4	12.3	24,201	22,047	46,248	12.38	8.84
1984	11.0	13.9	25,698	22,356	48,054	12.77	9.18
1985	10.3	11.0	23,097	20,538	43,635	13.31	9.52
1986	3.7	11.1	12,168	11,754	23,922	13.75	9.73
1987	6.2	14.7	10,555	9,208	19,763	14.02	9.91
1988	15.0	16.6	13,198	10,759	23,957	14.47	10.18
1989	11.6	14.9	11,557	9,795	21,352	12.29	10.49
1990	12.6	12.0	11,316	9,642	20,958	12.72	10.83
1991	9.7	7.9	10,599	10,863	21,462	13.52	11.18
1992	N/A	N/A	N/A	N/A	N/A	13.97	11.46
1993	N/A	N/A	N/A	N/A	N/A	14.13	11.74
1994	N/A	N/A	N/A	N/A	N/A	14.10	12.06
1995	N/A	N/A	N/A	N/A	N/A	14.52	12.37
1996	N/A	N/A	N/A	N/A	N/A	14.87	12.77
1997	N/A	N/A	N/A	N/A	N/A	15.66	13.17
1998	N/A	N/A	N/A	N/A	N/A	16.83	13.49
1999	N/A	N/A	N/A	N/A	N/A	16.86	13.91

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### 17. DRILLING COSTS & INDICES

Year	Drilling Costs			Producer Price Index	Crude Price Index	Oil Machinery Index
	Total (Mill. \$)	Per Well (\$)	Per Ft. (\$)			
	1982=100					
1980	22,800	367,682	77.03	88.0	75.9	76.3
1981	36,666	453,691	94.30	96.1	109.6	91.1
1982	39,428	514,378	108.73	100.0	100.0	100.0
1983	25,105	371,721	83.34	101.6	92.9	97.4
1984	25,206	326,463	71.90	103.7	91.3	96.6
1985	23,697	349,399	75.35	104.7	84.5	96.8
1986	13,552	364,577	76.88	103.2	46.9	94.3
1987	9,239	279,615	58.71	105.4	55.5	93.3
1988	10,550	354,713	70.23	108.0	46.2	97.0
1989	9,669	362,243	75.08	113.6	56.3	99.1
1990	10,937	383,596	76.07	119.2	71.0	102.4
1991	11,461	421,453	82.64	121.7	61.9	108.6
1992	8,556	382,607	70.27	123.2	58.0	107.8
1993	9,824	426,793	75.30	124.7	51.4	108.2
1994	9,676	483,237	79.49	125.5	47.1	110.8
1995	10,539	513,415	87.23	127.9	51.1	114.1
1996	10,919	496,105	88.92	131.3	62.6	117.8
1997	16,042	603,918	107.83	131.8	57.5	122.8
1998	17,586	778,480	133.64	130.7	35.7	125.9
1999	N/A	N/A	N/A	133.0	50.3	126.5

### 19. GENERAL ECONOMIC DATA

Year	Cost of Oil Imports	Gross Domestic Product			Consumer Price Index	Industrial Production Index
		Current \$	Constant 1996 \$	Price Deflator		
		(Bill. \$)			1996=100	1982-84=100
1980	78.6	2,545.6	4,872.3	57.4	82.4	79.7
1981	76.7	3,131.4	4,993.9	62.7	90.9	81.0
1982	60.5	3,259.2	4,900.3	66.5	96.5	76.7
1983	53.2	3,535.0	5,105.6	69.2	99.6	79.5
1984	56.9	3,932.8	5,402.8	71.8	103.9	86.6
1985	50.5	4,213.0	5,689.8	74.0	107.6	88.0
1986	35.1	4,452.9	5,885.7	75.7	109.7	89.0
1987	42.3	4,742.5	6,092.6	77.8	113.7	93.2
1988	38.8	5,108.3	6,349.0	80.5	118.4	97.4
1989	49.7	5,489.1	6,568.7	83.6	124.0	99.1
1990	61.6	5,803.3	6,683.5	86.8	130.8	98.9
1991	51.4	5,986.2	6,669.1	89.8	136.3	97.0
1992	51.2	6,319.0	6,891.1	91.7	140.4	100.0
1993	51.0	6,642.3	7,054.2	94.2	144.6	103.4
1994	50.8	7,054.3	7,337.8	96.1	148.3	109.1
1995	54.4	7,400.6	7,537.8	98.2	152.5	114.3
1996	72.0	7,813.2	7,813.2	100.0	157.0	119.4
1997	71.2	8,318.4	8,159.5	101.9	160.6	127.0
1998	50.3	8,790.2	8,515.6	103.2	163.1	132.4
1999	67.2	9,299.2	8,875.7	104.8	166.7	137.0

### 18. OIL & GAS EMPLOYMENT

Year	Extraction	Refining	Transportation	Wholesale	Retail	Total Industry
1980	559.7	167.0	189.3	223.9	560.8	1,700.7
1981	692.1	185.1	195.8	231.5	562.2	1,866.7
1982	708.3	175.8	198.2	222.6	559.0	1,863.9
1983	597.8	169.2	193.6	210.9	556.2	1,727.7
1984	606.5	162.2	192.3	208.3	574.7	1,744.0
1985	582.9	152.5	193.5	205.9	588.5	1,723.3
1986	450.5	140.7	185.6	200.5	596.0	1,573.3
1987	401.8	133.5	183.8	197.9	608.0	1,525.0
1988	400.3	120.8	182.6	203.2	625.4	1,532.3
1989	381.0	117.3	181.8	206.9	641.4	1,528.4
1990	394.7	117.8	183.2	195.6	647.1	1,538.4
1991	392.9	121.5	185.4	185.6	626.4	1,511.8
1992	352.6	119.2	182.6	172.7	615.7	1,442.8
1993	349.8	112.2	179.4	162.8	617.2	1,421.4
1994	336.5	108.9	176.4	161.1	633.9	1,416.8
1995	320.1	104.5	168.6	158.8	648.9	1,400.9
1996	322.0	100.2	161.5	155.5	668.9	1,408.1
1997	339.0	98.0	155.6	154.9	675.9	1,423.4
1998	339.2	96.0	150.3	155.0	689.4	1,429.9
1999	293.1	92.1	145.0	153.5	701.5	1,385.2

### PEAK YEAR MILESTONES

Operators of Record	1982	12,955
Seismic Crew Count	1981	8,172
Rotary Rigs Active	1981	3,970
Exploratory Wells Drilled	1981	17,430
Oil Wells Drilled	1984	44,472
Gas Wells Drilled	1981	19,742
Dry Holes Drilled	1981	26,972
Total Wells Drilled	1981	89,234
Producing Oil Wells	1985	646,626
Producing Gas Wells	1998	309,005
Drilling Costs	1982	\$39.4 Bill.
Crude Oil Production	1970	9,637 Thous. b/d
Stripper Well Production	1961	1,622 Thous. b/d
Petroleum Imports	1999	10,852 Thous. b/d
Petroleum Demand	1999	19,519 Thous. b/d
Natural Gas Production	1973	22,648 Bcf
Natural Gas Consumption	1972	22,049 Bcf
Natural Gas Imports	1999	3,547 Bcf
Oil Wellhead Price	1981	\$31.77 per Bbl.
Gas Wellhead Price	1984	\$2.66 per Mcf
Total Industry Employment	1981	1.9 Mill.

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**SOURCES:**

1. Seismic Crews: IHS Energy Group; Wells: American Petroleum Institute (API)
2. Rotary Rigs: Baker Hughes; Wells and Footage: API (estimated completion basis)
3. Operators: IHS Energy Group; Producing Wells: *World Oil*
4. Stripper Wells: Interstate Oil & Gas Compact Commission (IOGCC)
- 5.-6. Energy Information Administration (EIA); API; American Gas Association
- 7.-13. EIA and IPAA
14. Wholesale Prices: IPAA; Retail Gasoline Prices: *Oil & Gas Journal*
15. Wellhead Value: EIA; Taxes: IPAA
16. Rate of Return: API (20 Largest Companies) and Standard and Poor's Compustat; Wages: Bureau of Labor Statistics; Other Data: API
17. Drilling Costs: *Joint Association Survey*; Oil Field Wage Index: IPAA; Other Indices: Dept. of Commerce
18. Bureau of Labor Statistics
19. Department of Commerce

**NOTES:**

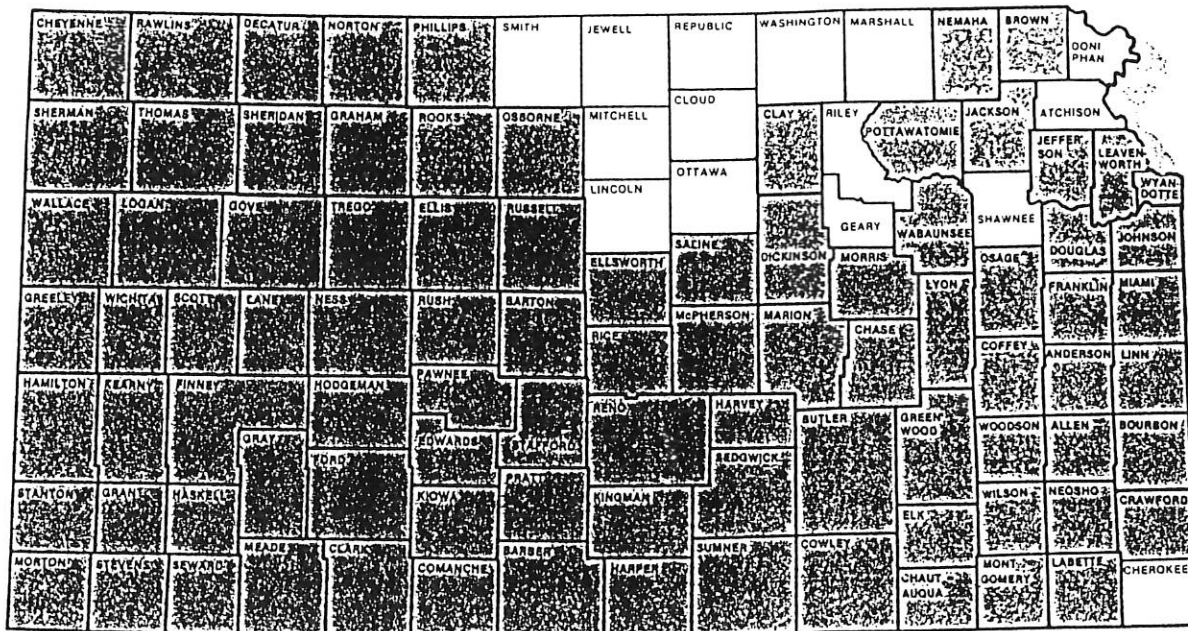
- A. Crude oil production and imports include lease condensate. Other petroleum supply includes refinery processing gain and other hydrocarbons.
- B. Producing wells and reserves are shown as of December 31st each year.
- C. Alaskan natural gas reserves incurred a significant downward revision in 1988.
- D. Imports for the Strategic Petroleum Reserve are included only in Table #10, "Imports by Origin."
- E. Marketed natural gas (wet) includes natural gas liquids. Total natural gas supply includes withdrawals from storage and supplemental gaseous fuels.
- F. Gasoline wholesale prices are for unleaded fuel after 1981. Retail prices are for unleaded fuel after 1984.
- G. All GDP statistics are in 1996 "chain weighted" dollars, unless noted otherwise.

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# KANSAS



Counties with crude oil and/or natural gas production

## EXTENT AND ECONOMIC VALUE OF OIL AND GAS INDUSTRY

<table border="0" style="width: 100%;"> <tr> <td style="width: 80%;">1. Number of counties . . . . .</td> <td style="text-align: right;">105</td> </tr> <tr> <td>2. Number of counties with crude oil and/or gas production . . . . .</td> <td style="text-align: right;">90</td> </tr> <tr> <td>3. Total land area (acres) . . . . .</td> <td style="text-align: right;">52,343,680</td> </tr> <tr> <td>4. Area proved productive of crude oil and/or gas (acres) . . . . .</td> <td style="text-align: right;">7,600,000</td> </tr> <tr> <td>5. Estimated nonproductive area leased Jan. 1, 1983 (acres) . . . . .</td> <td style="text-align: right;">9,400,000</td> </tr> <tr> <td>6. Percent of total land area productive or leased . . . . .</td> <td style="text-align: right;">32.5%</td> </tr> <tr> <td>7. Wellhead value of crude oil produced all time to Jan. 1, 1983 (thous.) . . . . .</td> <td style="text-align: right;">\$20,974,133</td> </tr> <tr> <td>8. Average field price of crude oil per barrel in 1982 . . . . .</td> <td style="text-align: right;">\$30.79</td> </tr> <tr> <td>9. Wellhead value of crude oil produced in 1982 (thous.) . . . . .</td> <td style="text-align: right;">\$2,171,465</td> </tr> <tr> <td>10. Wellhead value of natural gas produced in 1982 (thous.) . . . . .</td> <td style="text-align: right;">\$645,655</td> </tr> </table>	1. Number of counties . . . . .	105	2. Number of counties with crude oil and/or gas production . . . . .	90	3. Total land area (acres) . . . . .	52,343,680	4. Area proved productive of crude oil and/or gas (acres) . . . . .	7,600,000	5. Estimated nonproductive area leased Jan. 1, 1983 (acres) . . . . .	9,400,000	6. Percent of total land area productive or leased . . . . .	32.5%	7. Wellhead value of crude oil produced all time to Jan. 1, 1983 (thous.) . . . . .	\$20,974,133	8. Average field price of crude oil per barrel in 1982 . . . . .	\$30.79	9. Wellhead value of crude oil produced in 1982 (thous.) . . . . .	\$2,171,465	10. Wellhead value of natural gas produced in 1982 (thous.) . . . . .	\$645,655	<table border="0" style="width: 100%;"> <tr> <td style="width: 80%;">11. Total wellhead value of oil and gas in 1982 (thous.) . . . . .</td> <td style="text-align: right;">\$2,817,120</td> </tr> <tr> <td>12. Percent of petroleum value to total all minerals . . . . .</td> <td style="text-align: right;">78.6%</td> </tr> <tr> <td>13. Principal mineral products in order of value:</td> <td></td> </tr> <tr> <td>    1st . . . . . Crude oil</td> <td></td> </tr> <tr> <td>    2nd . . . . . Natural gas</td> <td></td> </tr> <tr> <td>    3rd . . . . . Portland cement</td> <td></td> </tr> <tr> <td>14. Number of employees engaged in oil and gas production . . . . .</td> <td style="text-align: right;">17,108</td> </tr> <tr> <td>15. First year of crude oil production</td> <td style="text-align: right;">1889</td> </tr> <tr> <td>    First year of natural gas production . . . . .</td> <td style="text-align: right;">1882</td> </tr> <tr> <td>16. First recorded production of:</td> <td></td> </tr> <tr> <td>    Crude oil (barrels) . . . . . in 1889</td> <td style="text-align: right;">500</td> </tr> <tr> <td>    Natural gas (Mcf) . . . . . in 1906</td> <td style="text-align: right;">69,323</td> </tr> <tr> <td>17. Geophysical activity — crew months worked in 1982 . . . . .</td> <td style="text-align: right;">98</td> </tr> </table>	11. Total wellhead value of oil and gas in 1982 (thous.) . . . . .	\$2,817,120	12. Percent of petroleum value to total all minerals . . . . .	78.6%	13. Principal mineral products in order of value:		1st . . . . . Crude oil		2nd . . . . . Natural gas		3rd . . . . . Portland cement		14. Number of employees engaged in oil and gas production . . . . .	17,108	15. First year of crude oil production	1889	First year of natural gas production . . . . .	1882	16. First recorded production of:		Crude oil (barrels) . . . . . in 1889	500	Natural gas (Mcf) . . . . . in 1906	69,323	17. Geophysical activity — crew months worked in 1982 . . . . .	98
1. Number of counties . . . . .	105																																														
2. Number of counties with crude oil and/or gas production . . . . .	90																																														
3. Total land area (acres) . . . . .	52,343,680																																														
4. Area proved productive of crude oil and/or gas (acres) . . . . .	7,600,000																																														
5. Estimated nonproductive area leased Jan. 1, 1983 (acres) . . . . .	9,400,000																																														
6. Percent of total land area productive or leased . . . . .	32.5%																																														
7. Wellhead value of crude oil produced all time to Jan. 1, 1983 (thous.) . . . . .	\$20,974,133																																														
8. Average field price of crude oil per barrel in 1982 . . . . .	\$30.79																																														
9. Wellhead value of crude oil produced in 1982 (thous.) . . . . .	\$2,171,465																																														
10. Wellhead value of natural gas produced in 1982 (thous.) . . . . .	\$645,655																																														
11. Total wellhead value of oil and gas in 1982 (thous.) . . . . .	\$2,817,120																																														
12. Percent of petroleum value to total all minerals . . . . .	78.6%																																														
13. Principal mineral products in order of value:																																															
1st . . . . . Crude oil																																															
2nd . . . . . Natural gas																																															
3rd . . . . . Portland cement																																															
14. Number of employees engaged in oil and gas production . . . . .	17,108																																														
15. First year of crude oil production	1889																																														
First year of natural gas production . . . . .	1882																																														
16. First recorded production of:																																															
Crude oil (barrels) . . . . . in 1889	500																																														
Natural gas (Mcf) . . . . . in 1906	69,323																																														
17. Geophysical activity — crew months worked in 1982 . . . . .	98																																														

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ATTACHMENT B

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### PRODUCTION AND RESERVES

### EXPLORATION AND DEVELOPMENT

18. Year of peak crude oil production	1956
19. Crude oil produced in peak year (barrels) . . . . .	124,204,000
20. Percent of crude oil produced by stripper wells . . . . .	68.3%
21. Number of producing wells at end of 1982: Crude oil . . . . .	46,189
Gas and gas distillate . . . . .	11,254
Total . . . . .	57,443
22. Average daily production of crude oil per well at end of 1982	4.2 b/d
23. Percent of wells on artificial lift ...	97.6%
24. Average production (barrels per day):	

	Crude Oil	NGL	Total Petroleum Liquids
1979	156,151	87,397*	243,548
1980	164,347	78,500*	242,847
1981	180,301	76,500*	256,801
1982	193,219	75,000*	268,219

\*Estimated

#### 25. Production and new reserves found in 1982:

	Crude Oil <small>(million bbls)</small>	NGL <small>(million bbls)</small>	Total Petroleum Liquids <small>(million bbls)</small>	Natural Gas <small>(billion cu. ft.)</small>
New reserves found	70	-93	-23	144
Estimated production	63	14	77	459
Net change in reserves	7	-107	-100	-315

#### 26. Production and new reserves found all time to Dec. 31, 1982:

	Crude Oil <small>(million bbls)</small>	NGL <small>(million bbls)</small>	Total Petroleum Liquids <small>(million bbls)</small>	Natural Gas <small>(billion cu. ft.)</small>
Total reserves found	5,454	982	6,436	37,701
Total production	5,076	680	5,756	27,573
Proved reserves, Dec. 31, 1982	378	302	680	10,128

27. Rotary drilling rigs active in 1982 (average) . . . . .	157
28. Deepest producing well drilled to Jan. 1, 1983 (feet)... Natural gas	6,774
29. Deepest well drilled to Jan. 1, 1983 (feet) . . . . Dry hole	8,713
30. Wells and footage drilled in 1982:	

	Number	Percent
<i>Wildcat Wells</i>		
Oil wells	358	17.0
Gas wells	81	3.8
Dry holes	1,671	79.2
Total wells	2,110	100.0
Average depth per well (feet)		3,770
Total footage		7,954,245

	Number	Percent
<i>Development Wells</i>		
Oil wells	3,750	53.1
Gas wells	729	10.3
Dry holes	2,354	33.4
Service wells	223	3.2
Total wells	7,056	100.0

Average depth per well (feet)	3,057
Total footage	21,567,448

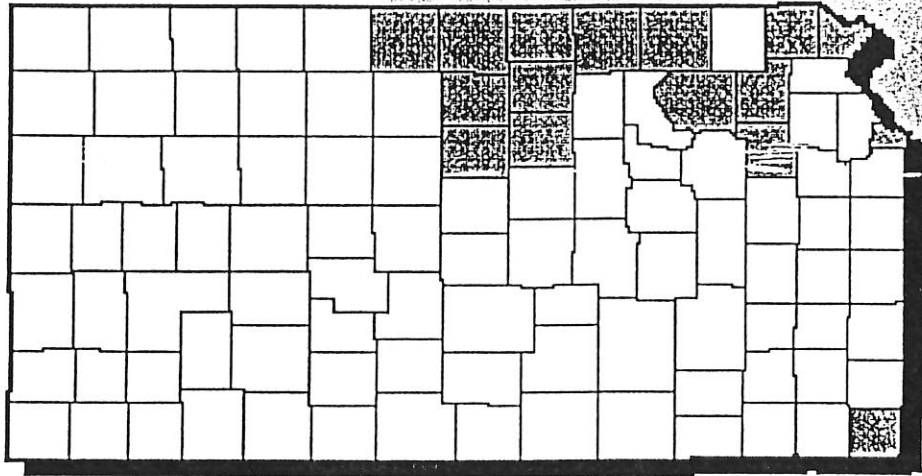
	Number	Percent
<i>Total Wells</i>		
Oil wells	4,108	44.8
Gas wells	810	8.8
Dry holes	4,025	43.9
Service wells	223	2.5
Total wells	9,166	100.0

Average depth per well (feet)	3,221
Total footage	29,521,693

#### 31. Total wells drilled all time to Jan. 1, 1983 (excluding service wells):

	Number	Percent
Oil wells	109,070	51.6
Gas wells	20,735	9.8
Dry holes	81,714	38.6
Total wells	211,519	100.0

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**Background Information**

**Counties**

Number of counties 105  
 With oil and/or gas production 89

**First year of production**

Crude oil 1889  
 Natural gas 1882

**Year and amount of peak production**

Crude oil — 124,204 thous. bbls. 1956  
 Natural gas — 899,955 MMcf 1970

**Deepest producing well (ft.)**

Crude oil 7,400  
 Natural gas 6,774

**Year and depth of deepest well drilled (ft.)**

1984 11,300

**Cumulative number of total wells drilled**

as of 12/31/98 (excluding service wells)

Oil wells	128,056	50%
Gas wells	27,881	11%
Dry holes	101,284	39%
<b>Total</b>	<b>257,221</b>	<b>100%</b>

**Cumulative crude oil wellhead value**

as of 12/31/98 (thous. \$) \$39,483,553

**Cumulative production & new reserves**

Production as of 12/31/98, reserves as of 12/31/96

	Crude Oil	NGL (mill. bbls)	Total	Natural Gas (Bcf)
Reserves	6,100	1,308	7,408	43,188
Production	5,862	1,037	6,899	36,199

Counties with oil and/or gas production

**Value of Oil and Gas**

**Average wellhead price**

(1998)

Crude oil (\$/bbl.) \$12.19  
 Natural gas (\$/Mcf) \$1.96

**Wellhead value of production**

(1998, in thous. \$)

Crude oil \$433,245  
 Natural gas \$1,124,099  
 Total \$1,557,344

**Average natural gas price**

(1998, \$/Mcf)

Residential consumers \$6.00  
 Commercial consumers \$4.98  
 Industrial consumers \$3.17  
 Electric utilities \$2.14  
 City Gate \$2.96

**Severance taxes paid**

(1998, in thous. \$)

\$51,686

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## 1998 Industry Statistics

### Number of wells drilled

	Exploratory	Development	Total
Oil	15	194	209
Gas	15	285	300
Dry	135	216	351
Service	--	26	26
Total	165	721	886

### Total footage drilled

(thous. ft.)

	Exploratory	Development	Total
Oil	75.0	710.4	785.4
Gas	78.6	963.1	1,041.7
Dry	592.8	787.3	1,380.1
Service	--	49.1	49.1
Total	746.3	2,509.9	3,256.3

(Note: Totals may not add due to rounding.)

### New-field wildcats drilled

Footage (thous. ft.) 118 524.8

### Average rotary rigs active

13

### State-wide rank

	Crude Oil	Natural Gas
Wells drilled	5th	9th
Production	10th	8th
Reserves (1997)	10th	8th

### Number of producing wells

(12/31/98)

Crude oil	41,520
Flowing	0
Artificial lift	41,520
Natural gas	17,786
Total	59,306

### Average production

	thous. bbls.	thous. b/d
Crude oil	35,541	97
NGL (est.)	29,113	80
Total	64,654	177

### Natural gas marketed production

(MMcf)

573,520

### Average output per producing well

Crude oil (bbls.)	856
Natural gas (Mcf)	45,346

### Average number of employees

Oil and natural gas extraction	5,953
Refining	1,453
Transportation	2,904
Wholesale	4,225
Retail	8,393
Total petroleum industry	22,928

## 1997 Latest Available Data

### Petroleum reserves

as of 12/31/97 (mill. bbls.)

	Crude Oil	NGL	Total
New reserves	10	-42	-32
Production	38	25	63
Net annual change	-28	-67	-95
Proved reserves	238	271	509

### Natural gas reserves

as of 12/31/97 (Bcf)

	Associated Dissolved	Non- Associated	Dry Gas
New reserves	-18	-139	-76
Production	13	647	629
Net annual change	-31	-786	-705
Proved reserves	51	7,277	6,989

### Cost of drilling and equipping wells

	Cost/ft. (\$)	Cost/ well (\$)	Total Cost (thous. \$)
Oil	43.84	136,985	74,383
Gas	52.10	178,337	87,385
Dry	22.91	87,005	48,375
Total	38.30	132,249	210,143

### Stripper wells

Producing stripper wells	40,504
Stripper well abandonments	1,765
Crude oil production in bbls.	30,675,301
Crude oil production b/d	83,812
Percentage of oil production	77.0%

### Stripper oil reserves

as of 1/1/98 (thous. bbls.)

Primary	72,873
Secondary	65,933
Total	138,806

### Federal Onshore Mineral Lease Royalties

Oil	\$648,379
Gas	\$5,002,033
Total Royalties	\$5,860,379

### Federal Onshore and Indian Oil and Gas Leases

Number of leases	450
Acres leased	123,734

For more information please contact: Information Services  
Department, Independent Petroleum Association of America,  
1101 16th Street, N.W., Washington, D.C. 20036, 202-857-4722,  
FAX: 202-857-4799

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**CRUDE OIL/GASOLINE  
WELLHEAD TO PUMP PRICES**

Year	(\$/Bbl) Crude Oil Wellhead Prices	(\$/Bbl) Domestic Crude Oil Refiner Acquisition Cost	(Cnts/Gal) Wholesale Price of Gasoline	(Cnts/Gal) Retail Price of Gasoline Excluding Tax	(Cnts/Gal) Taxes	(Cnts/Gal) Pump Price	(Cnts/Gal) Wellhead Cost of Crude Oil in a Gallon of Gasoline	Wellhead Cost of Crude as % of Pump Price	Tax as % of Pump Price
1980	21.59	24.23	87.40	107.07	11.83	118.90	48.79	41.03%	9.95%
1981	31.77	34.33	101.63	119.91	13.01	132.92	71.80	54.02%	9.79%
1982	28.52	31.22	94.56	111.29	14.23	125.52	64.45	51.35%	11.34%
1983	26.19	28.87	86.97	102.69	19.19	121.88	59.18	48.56%	15.74%
1984	25.88	28.53	81.14	99.57	21.14	120.71	58.48	48.45%	17.51%
1985	24.09	26.66	81.11	93.91	21.86	115.77	54.44	47.02%	18.88%
1986	12.51	14.82	47.74	69.57	22.10	91.67	28.27	30.84%	24.11%
1987	15.40	17.76	53.22	72.12	23.28	95.40	34.80	36.48%	24.40%
1988	12.58	14.74	50.31	70.59	23.93	94.52	28.43	30.08%	25.32%
1989	15.86	17.87	59.15	76.83	24.50	101.32	35.84	35.37%	24.18%
1990	20.03	22.59	72.13	87.46	25.83	113.29	45.26	39.95%	22.80%
1991	16.54	19.33	64.24	84.66	30.94	115.60	37.38	32.34%	26.76%
1992	15.99	18.63	60.90	80.23	32.87	113.10	36.13	31.95%	29.06%
1993	14.25	16.67	54.85	76.70	34.10	110.80	32.20	29.06%	30.78%
1994	13.19	15.67	52.95	74.10	37.50	111.20	29.80	26.80%	33.72%
1995	14.62	17.33	55.51	74.80	39.30	114.70	33.04	28.81%	34.26%
1996	18.46	20.77	68.29	82.70	40.40	123.10	41.72	33.89%	32.82%
1997	17.23	19.61	66.21	82.60	40.80	123.40	38.93	31.55%	33.06%
1998	10.88	13.21		62.46	40.53	102.99	24.59	23.88%	39.35%
1999	15.66						35.39		

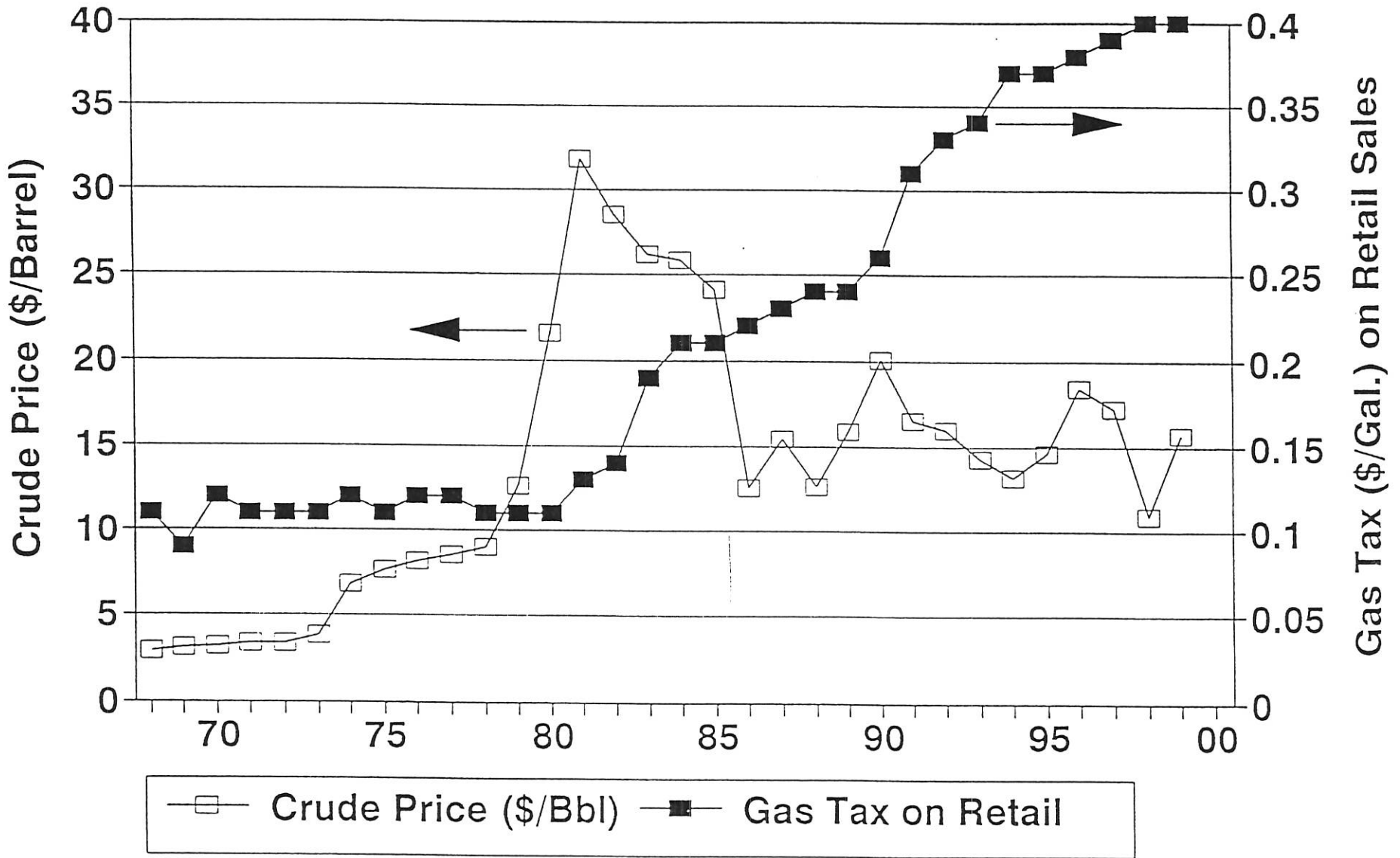
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# PRICES -- CRUDE OIL & AVE. TOTAL TAXES

## Crude Oil Price and Ave. Total Tax



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CHARLES B. WILSON  
TESTIMONY BEFORE THE  
HOUSE COMMITTEE ON TAXATION  
FEBRUARY 7, 2001

My name is Charles B. Wilson and I am a vice president with BEREXCO INC., an independently owned oil and gas exploration and production company headquartered in Wichita. BEREXCO currently employees over 300 personnel and we operate nearly 1000 oil and gas wells in 44 Kansas counties, in addition to operations in 6 other nearby states.

I want to talk specifically about HB 2066, the repeal of the severance tax on oil.

In 1983, when the severance tax became effective, Kansas operators were producing 211,000 barrels a day of crude oil in the state of Kansas. Today, the production is less than half that amount, at approximately 95,000 barrels a day. In 1984, the first full year of tax collections, crude oil severance taxes were over \$70,000,000. In the upcoming fiscal year, the tax collections from oil are estimated to be only approximately \$16,000,000. As the oil activity in Kansas continues its decline, the regressive nature of the severance tax becomes an accentuating factor in this decline.

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In Kansas, unlike most other states, there is a significant ad valorem tax assessed each year based on the value of the oil remaining in the ground. Over the productive life of a well, a good number of the barrels in the ground are taxed over again and again, year after year. Then when the oil is finally produced, or severed from the ground, it is taxed one last time as a severance tax.

Over the last decade, the legislature has provided a number of exemptions from the severance tax to save some of our most marginal leases from plugging. Also, there are exemptions on incremental production resulting from qualified enhanced recovery projects. We thank you for providing past legislation which provides this relief and creating incentives for making additional investments in existing wells. We actively pursue eligible exemptions, however it worth candidly noting that the record keeping requirements for eligible exemptions for the oil and gas operators, the Department of Revenue, and the Kansas Corporation Commission are very tedious, expensive and cumbersome; perhaps more so for the many small operators in Kansas.

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However, the severance tax on remaining wells continues to be punitive and burdensome on the economics of wells as new investments are evaluated. Capital for new investments comes from the cash flow generated from existing wells. The Kansas severance tax reduces the cash flow available for new drilling. As we evaluate where to allocate capital for investment, Kansas projects compete with projects in the other states in which we operate. Moreover, there are many operators in Kansas, besides BEREXCO, that have operations in other states. The Kansas severance tax, when added to the county ad valorem tax, calculates to a tax of nearly 10% on gross revenues. This rate of tax as a deduction from gross revenues, regardless of net profits, creates a significant disincentive when we consider investing in new Kansas projects, compared to projects offered in other states.

The same arguments could also be effectively made regarding the severance tax on natural gas. But being realistic with the fiscal note associated with the tax on natural gas, we feel it is not appropriate at this time to consider its repeal.

However, I truly believe repeal of the severance tax on oil is now more than appropriate.

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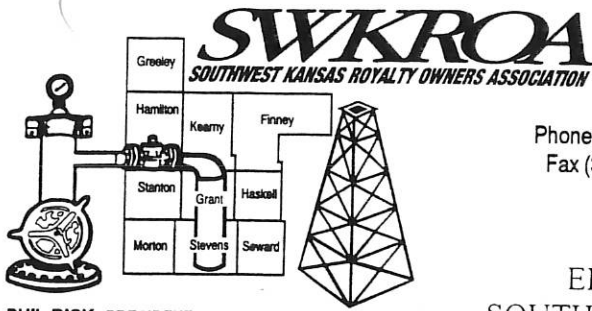
The entire state Kansas is a winner with a healthy oil and gas business. On top of the layers of ad valorem, sales and income taxes, the severance tax is an unfair tax. It is a counter-productive burden on the health of this business in that it takes away money that could be spent adding value, and which such money could be spent and multiplied back in local Kansas communities. Therefore, I strongly encourage you to pass and support HB 2066, the repeal of the severance tax on oil.

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Phone (316) 544-4333  
Fax (316) 544-2230

E-mail: SWKROA@pld.com  
http://users.pld.com/swkroa

209 E. 6th St. / P.O. Box 250  
Hugoton, Kansas 67951

PHIL DICK, PRESIDENT

ERICK NORDLING, EXECUTIVE SECRETARY

B.E. NORDLING, ASST. SECRETARY

STATEMENT OF  
ERICK E. NORDLING, EXECUTIVE SECRETARY  
SOUTHWEST KANSAS ROYALTY OWNERS ASSOCIATION  
HUGOTON, KANSAS 67951

February 7, 2001

To the Honorable Members of the House Committee on Taxation:

**RE: House Bill 2066 relating to exempting coal and oil production from severance taxation**

Chairman Edmonds and Members of the Committee:

My name is Erick E. Nordling of Hugoton. I am Executive Secretary of the Southwest Kansas Royalty Owners Association (SWKROA). I am appearing on behalf of members of our Association and on behalf of Kansas royalty owners to support of House Bill No. 2066 dealing with exempting coal and oil production from severance taxation.

BACKGROUND ON SWKROA

SWKROA is a non-profit Kansas corporation, organized in 1948, for the primary purpose of protecting the rights of landowners in the Hugoton Gas Field. We have a membership of around 2,300 members. Our membership primarily consists of landowners owning mineral interests in the Kansas portion of the Hugoton Field who are lessors under oil and gas leases, as distinguished from oil and gas lessees, producers, operators, or working interest owners.

One of the early objective of our Association, formed in 1948, was to fight a severance tax. We have maintained that position throughout the years, even though a severance tax was eventually enacted.

We believe that any severance tax acts to reduce the long term development of our energy resources and makes our nation more dependant on foreign energy and thus more vulnerable to price increases. We also note that mineral production in Kansas is declining and will continue to do so in the years to come, thus creating a declining and unstable tax source for the state.

SEVERANCE TAX EXEMPTION BILL

House Bill No. 2066 is an industry sponsored bill which exempts coal and oil production after July 1, 2001 from severance taxation.

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As we have seen in recent months, it is very important for the United States to develop and implement policies that will encourage responsible development of natural resources within its borders to help make itself energy independent.

Kansas has been blessed with many oil and gas deposits. Most of the "easy to find" reserves have been discovered long ago, yet there are many reserves in Kansas that are not so easy to find, or are more difficult and costly to produce.

To the extent that HB No. 2066 helps to promote further development of long term stable oil supplies in Kansas, and the development of difficult to find or costly to produce oil reserves in Kansas, SWKROA supports the bill.

Our Association is not experienced with the production of coal, so our remarks are limited to exempting oil from severance taxation.

Thank you for this opportunity to present these concerns to your honorable committee.

Respectfully submitted,

Erick E. Nordling,  
Executive Secretary, SWKROA

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WRITTEN TESTIMONY OF  
SHAWN P. DEVLIN  
VICE PRESIDENT OF VIKING RESOURCES, INC.  
HOUSE COMMITTEE ON TAXATION

FEBRUARY 7, 2001

RE: HOUSE BILL NO. 2066

Madame Chair and Members of the Committee:

My name is Shawn Devlin. I work for Viking Resources, Inc., an independent oil and gas exploration company in Wichita. Viking is a family business, started by my father. We have three full-time and one part-time employees. All of our production is in Kansas, and will continue to be in the foreseeable future. I wish to present background statistical information to aid you in your discussion and consideration of House Bill No. 2066

The first place to start in looking at the condition of the oil and gas industry in Kansas is prices. We are all painfully aware of the spike in prices over the last year in gasoline and natural gas. They appear extreme, but I would ask you to consider the rebound from the lows we experienced in the last few years, and average them over time. The prices oil and gas producers received 1998 and early 1999 lead to a dire situation in exploration and production, and were unsustainably low. The huge volatility in energy prices is bad for everyone, but particularly hard on oil and gas producers. Our budgeting and drilling plans are hard to set in such an environment.

In **Chart 1**, I have provided a graph of the percentage change from year-to-year in both the Consumer Price Index (CPI) and the Producer Price Index for Commodities (PPI), both from the Bureau of Labor Statistics. Please note both the volatility, and the 53%

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gain in year 2000 is a rebound from a 21% decline in 1998. It gets to the heart of the volatility and downward bias. You will notice that the rate of change in the CPI, is fairly steady and positive, and over this period has never been negative. On the other hand, the PPI has had wild swings. Since 1990, five years have shown increases, and five years decreases. Taken together, the two indexes show that our expenses have increased steadily, but our revenues have had wild swings.

In my mind prices have two faces: the stated (or nominal) price, and the inflation-adjusted (or real) price. Your constituents can easily observe the nominal prices at the gas pump, and when they receive their heating bills. However, when made constant, and adjusted for inflation, very few realize the bargain they receive. To adjust for inflation, I have applied the CPI to the series of prices, to show real, constant-dollar prices. **Table 1** gives a capsule view of oil and gas prices since 1972, through December 2000. It also provides the CPI and PPI for energy commodities deflators. Finally, it shows the inflation-adjusted prices for oil and gas.

**Chart 2** shows the nominal and inflation-adjusted prices of crude oil. The CPI-adjusted line shows what crude should sell for over time. The lines cross at the base years of the CPI, and since 1984, shows crude has sold for less than it should have, if it had increased in price at the same rate as other goods in our economy.

Another component of prices is how crude oil is priced at the well. Crude oil is sold to a purchaser on a "Field Posted." This is what the producer receives. **Table 2** is Koch Oil Company's latest posting price sheet. This table shows the variety of prices paid in

different areas of the country. Posted prices all over the country are set by purchasers as a differential, called "Basis" to West Texas Intermediate (WTI), a benchmark grade of crude. WTI is the crude referred to in trading on the New York Mercantile Exchange (NYMEX), and is deliverable at Cushing Oklahoma. The differences between posted prices and WTI (basis) are accounted for by quality and location differences. In general, Kansas crude is of lower quality, and not deliverable to Cushing, or expensive to transport there. The basis is now -\$3.50 to the NYMEX oil price, on average, and is growing through time. Most producers, in addition, receive a "Bonus" from the purchaser, as a way to get the producer's business. As an average, I would put the bonuses at near a dollar. So the NYMEX price quote can generally translate to a price \$2.50 less for a barrel sold in Kansas. For example, if the prompt-month NYMEX crude quote were \$30.35, a typical price a Kansas producer would receive is, \$27.75, including bonus. If quality or location were not optimal, this price would be adjusted downward, as shown by the different scales on Koch's posting bulletin.

The final, hidden, cost of price to producers is royalty payment. The owner of the mineral rights is generally the landowner. In exchange for rights to explore for oil and gas, the mineral rights owner typically gets a certain number of dollars per acre, and also a portion of the gross proceeds of oil and gas sold. Currently, most mineral owners get a minimum of 12.5% of the revenue, up to almost 25% of the revenue. These owners pay none of the expenses associated with exploration and ongoing production costs. If a well is dry, they have no costs whatsoever, and still retain the money for leasing the acreage. The operators take all the risk and expense of drilling a well, completing it, and producing it, for between 87.5% and 75% of the revenue in a producing well. Currently,



I estimate that it will cost over \$200,000 to lease, drill, complete and equip a typical Western Kansas well, and could be considerably higher, all before one drop of oil or cubic foot of gas is sold.

The number of producing oil wells is directly influenced by three basic variables: price of crude, new drilling, and operating costs. Unlike many of the state's other major industries, the oil and gas industry produces output from a declining asset. That is to say, manufacturing, agriculture, and service industries can generally increase output by adding capital in the form of human resources, money, or facilities. In the case of agriculture, the same land can continue to grow crops almost indefinitely. Similarly, aircraft manufacturing can use the same plant for decades. But an oil or gas well, by its very nature is a declining asset. At some point production will become unprofitable, although technically feasible. At some further point, production will cease regardless of the economics involved. New wells must continue to be drilled to replenish the reserves.

Oil reserves are not being sought out at the rate they have been in the past. Right now, footage drilled in Kansas is declining to steady, and this level of activity has not been seen since 1943. **Chart 3** shows a graph of total footage, in thousands, drilled by year. You can see we are now at levels of drilling not seen since the 1940's. At the same time as new wells are being explored for, current producing wells are on average producing fewer barrels of oil and cubic feet of gas.

This decline is so threatening to our industry that this fact alone can determine the future of oil production in the state. Average production per well is 2.5 barrels per day (BPD).

While on average this level is marginally economical, this still represents a huge reserve of producible oil in the state of Kansas. What is totally uneconomical is to try to recover these reserves again once a well has been plugged and abandoned. Once a well in the stripper category has been plugged, the remaining producible reserves will virtually never be recovered. Considering the costs to drill, complete and equip a well, at 2.5 BPD, with **no ongoing operating costs**, with no production decline, it would take 10 years to recover costs. No one can operate a well for free, and 10-year paybacks will attract exactly \$0 in capital.

Our operating costs have increased proportionally with the general costs of goods and services to consumers. Most wells run on pumps fueled by electricity or propane. This is usually the largest operating cost of a well. A few are able to run on gas produced by the well itself, but this is the exception to the rule. Propane costs have increased at the same rate as natural gas we heat our homes with, which is to say, nearly double. Likewise, our electricity costs have increased. We have also seen costs of services and parts increase, mostly through fuel surcharges. Finally, most wells produce salt water in addition to oil or gas. The percentage of water to oil typically increases, but the cost to lift a barrel of fluid, whether oil or water, is the same. Over the life of a well, the volume of fluid lifted to the surface remains fairly constant or increases. Severance tax is similar to another operating cost imposed on the production of a well. Costs are what ultimately leads to marginally productive wells being plugged. Any time an operator can reduce costs, that reservoir can economically produce more oil, with less waste.

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Since the peak employment of 1982, our industry has lost 72% of its employees!

**Chart 4** depicts total oil and gas employment in our state. This is experience, labor, and wages that will probably never return to our industry. Some of the most knowledgeable and experienced people we have will not return to the industry, and knowledge that takes decades to accrue will lie in waste. Employment in the industry covers a wide range from producers to service personnel, to manufacturing; white-collar and blue-collar alike. Right now, service companies and drilling operators cannot find enough employees to meet their demand, and the number of experienced people coming back into the industry is practically zero. Every person that our industry employs is a wage-earning, tax-paying person whom the State of Kansas does not have to support.

Our industry, while experiencing a slight upturn in the last twelve months, is not healthy. I can't find anyone in our industry who believes that recent price levels will continue. History has shown that time and again, high prices are short-lived, and prices tend to revert to a mean, which is historically near \$17. Taxes do have a big impact on the viability of our marginal wells. Most stripper wells (which is most wells in Kansas) operate on very low margins, even at \$25 oil. Removal of 4.3% severance tax could effectively double the gross margin, and extend the lives of many of these wells. Any relief from severance tax would be warmly received, and deeply appreciated. I hope that the conditions I have highlighted will help the committee members understand where we as producers stand, and the benefits that might accrue to many different interest holders in Kansas, not just the producers. Thank you very much for your time, your consideration on tax issues, and the service you provide to the people of Kansas.

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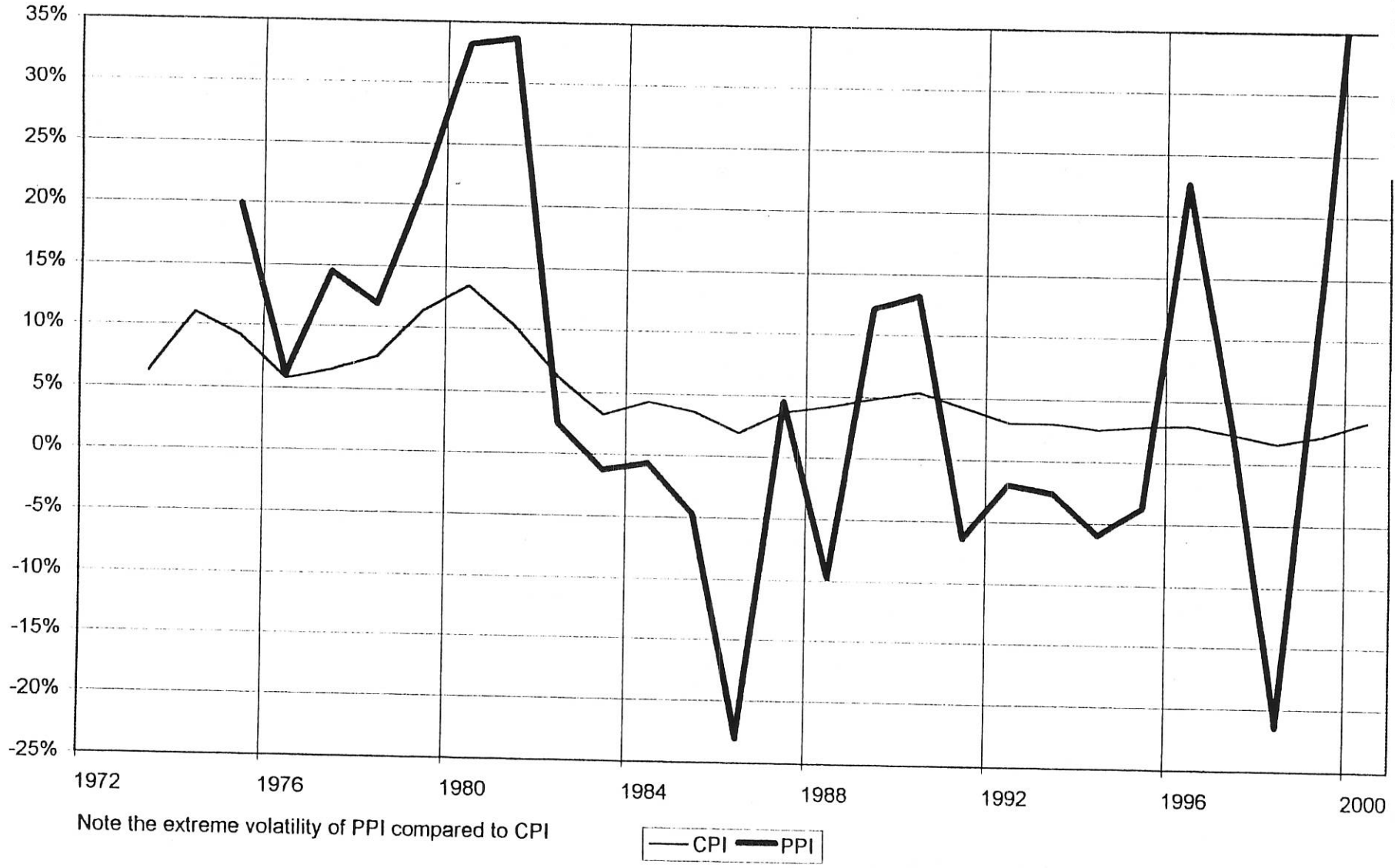
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Chart 1

Percentage Changes in Annual CPI vs. PPI (Energy Commodity)



Note the extreme volatility of PPI compared to CPI

— CPI — PPI

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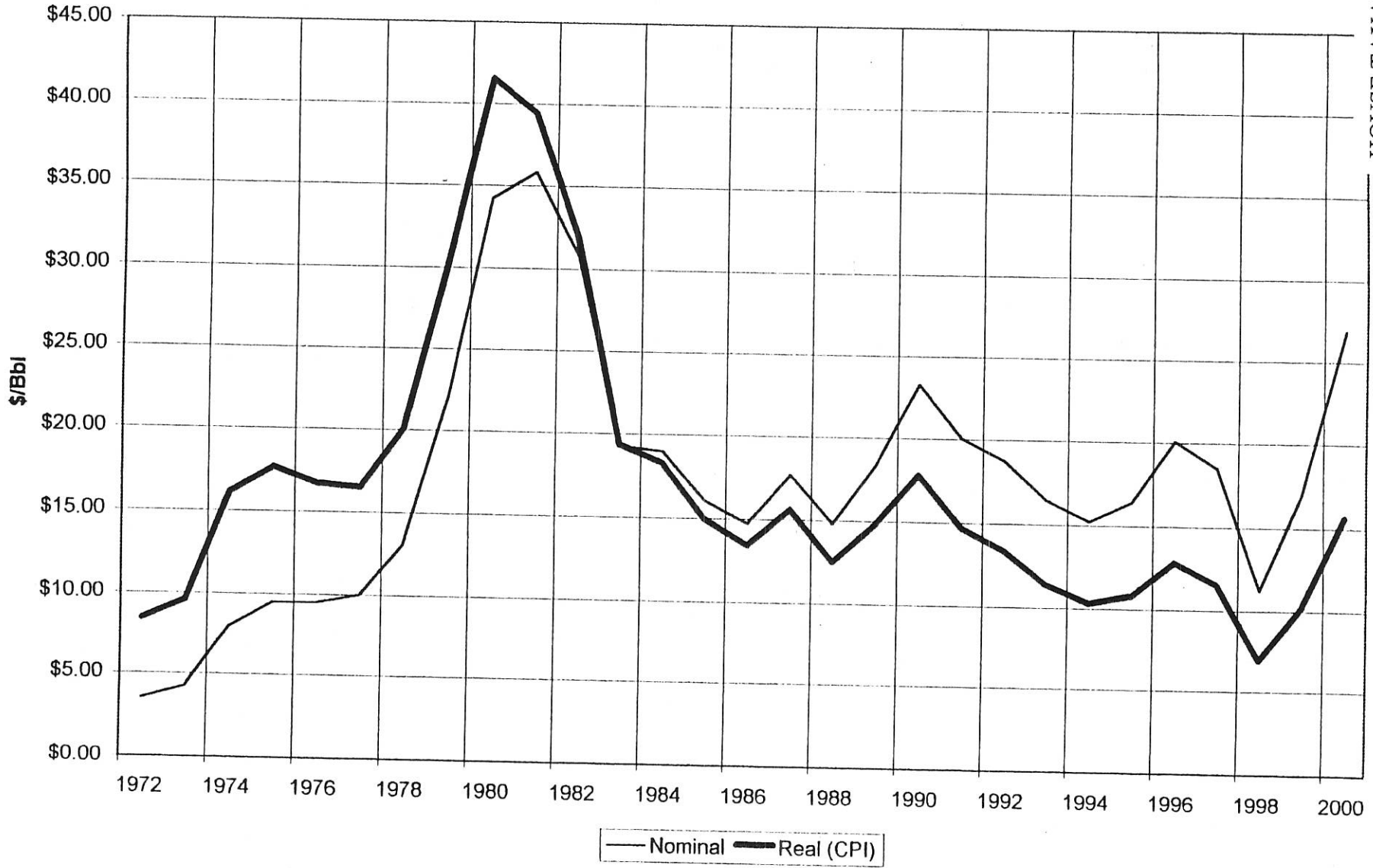
Table 1

## Kansas Crude Oil and Natural Gas Prices (and adjusted by Consumer Price Index)

Year	Annual CPI	Annual PPI	\$/Bbl			Wellhead \$/mmBTU		Residential \$/mmBTU		Residential Wellhead Spread
			Nominal	Real (CPI)	PPI-Adj	Nominal	Real (CPI)	Nominal	Real (CPI)	
1972	41.8	#N/A	3.52	8.42	#N/A	0.14	0.33	0.74	0.60	
1973	44.4	#N/A	4.25	9.57	#N/A	0.16	0.36	0.75	0.59	
1974	49.3	27.8	7.96	16.15	28.63	0.17	0.34	0.90	0.73	
1975	53.8	33.3	9.50	17.66	28.53	0.17	0.32	1.03	0.86	
1976	56.9	35.3	9.50	16.70	26.91	0.42	0.74	1.48	1.06	
1977	60.6	40.4	10.00	16.50	24.75	0.48	0.79	1.73	1.25	
1978	65.2	45.2	13.10	20.09	28.98	0.57	0.87	1.77	1.20	
1979	72.6	54.9	22.00	30.30	40.07	0.76	1.05	1.95	1.19	
1980	82.4	73.1	34.21	41.52	46.80	0.77	0.93	2.36	1.59	
1981	90.9	97.7	35.81	39.39	36.65	0.92	1.01	3.03	2.11	
1982	96.5	100.0	30.79	31.91	30.79	1.51	1.56	4.06	2.55	
1983	99.6	98.7	19.25	19.33	19.50	1.57	1.58	4.68	3.11	
1984	103.9	98.0	19.00	18.29	19.39	1.49	1.43	4.49	3.00	
1985	107.6	93.3	16.10	14.96	17.26	1.27	1.18	4.12	2.85	
1986	109.6	71.8	14.73	13.44	20.52	1.21	1.10	3.89	2.68	
1987	113.6	75.0	17.70	15.58	23.60	1.15	1.01	4.09	2.94	
1988	118.3	67.7	14.80	12.51	21.86	1.36	1.15	4.02	2.66	
1989	124.0	75.9	18.39	14.83	24.23	1.44	1.16	4.17	2.73	
1990	130.7	85.9	23.27	17.80	27.09	1.56	1.19	4.48	2.92	
1991	136.2	80.4	20.04	14.71	24.93	1.37	1.01	4.38	3.01	
1992	140.3	78.8	18.76	13.37	23.81	1.54	1.10	4.70	3.16	
1993	144.5	76.7	16.43	11.37	21.42	1.80	1.25	4.91	3.11	
1994	148.2	72.1	15.22	10.27	21.11	1.60	1.08	5.11	3.51	
1995	152.4	69.4	16.39	10.75	23.62	1.36	0.89	4.91	3.55	
1996	156.9	85.0	20.06	12.79	23.60	1.92	1.22	5.59	3.67	
1997	160.5	87.3	18.50	11.53	21.19	2.18	1.36	6.47	4.29	
1998	162.8	68.6	11.21	6.88	16.34	1.82	1.12	5.82	4.00	
1999	166.6	78.5	17.04	10.23	21.71	-	-	-	-	
2000	172.2	120.3	26.82	15.57	22.29	-	-	-	-	
Change from peak	0%	0%	-25%	-66%	-52%	-	-	-	-	

Prices are an average price for the year  
CPI from Bureau Labor Statistics, represents average annual rate  
Gas figures incomplete after 1998

Kansas Crude Prices





**KOCH'S CRUDE OIL POSTINGS**  
**Provided by Koch Petroleum Group, L.P.**  
**P.O. BOX 2256, WICHITA, KS 67201**  
**2001**

Effective 7:00 A.M., on dates shown below, and subject to its division orders as amended and supplemented, contracts and other agreements, KOCH PETROLEUM GROUP, L.P. will pay the following prices per barrel of 42 U.S. gallons for merchantable crude oil purchased and delivered into pipelines or facilities authorized by KOCH PETROLEUM GROUP, L.P., in the fields or area designated below. The following prices are for informational purposes only, do not constitute an offer, and are subject to change or revisions without notice

	Bulletin	01-019	01-020	01-021	01-022
	Effective	2/1	2/2	2/5	2/6
<b>ALABAMA/FLORIDA PANHANDLE</b>		24.25 *	25.75 *	25.00 *	24.75 *
Citronelle Field		25.00 *	26.50 *	25.75 *	25.50 *
<b>COLORADO:</b>					
Eastern Colorado		25.60 *	27.10 *	26.35 *	26.10 *
Colorado D-J Basin		25.75 *	27.25 *	26.50 *	26.25 *
<b>KANSAS:</b>					
Central Kansas		26.00 *	27.50 *	26.75 *	26.50 *
Eastern Kansas		25.00 *	26.50 *	25.75 *	25.50 *
Northwestern Kansas		25.75 *	27.25 *	26.50 *	26.25 *
Southwestern Kansas		25.75 *	27.25 *	26.50 *	26.25 *
<b>LOUISIANA:</b>					
South Louisiana Sweet		26.25 *	27.75 *	27.00 *	26.75 *
South Louisiana Sour (Onshore)		24.25 *	25.75 *	25.00 *	24.75 *
North Louisiana		26.50 *	28.00 *	27.25 *	27.00 *
<b>MISSISSIPPI:</b>					
Northwest Sweet		26.00 *	27.50 *	26.75 *	26.50 *
Northwest Sour		23.75 *	25.25 *	24.50 *	24.25 *
<b>NEBRASKA:</b>					
Nebraska Sleepy Hollow		25.10 *	26.60 *	25.85 *	25.60 *
Nebraska D-J Basin		25.50 *	27.00 *	26.25 *	26.00 *
Nebraska Intermediate		25.10 *	26.60 *	25.85 *	25.60 *
<b>NORTH DAKOTA:</b>					
North Dakota Sour		21.15 *	22.65 *	21.90 *	21.65 *
West Central North Dakota Sweet		25.65 *	27.15 *	26.40 *	26.15 *
Fryburg- Dodge Area		25.40 *	26.90 *	26.15 *	25.90 *
North Dak South Dak EastMT Sweet		25.55 *	27.05 *	26.30 *	26.05 *
North Dakota Northern Area		25.55 *	27.05 *	26.30 *	26.05 *
North Dakota Southern Area		25.30 *	26.80 *	26.05 *	25.80 *
<b>OKLAHOMA:</b>					
Oklahoma Sweet		26.75 *	28.25 *	27.50 *	27.25 *
Oklahoma Intermediate		26.25 *	27.75 *	27.00 *	26.75 *
Northwest Oklahoma Sweet		26.25 *	27.75 *	27.00 *	26.75 *
Oklahoma Sour		23.75 *	25.25 *	24.00 *	23.75 *
Oklahoma Panhandle Sweet		26.25 *	27.75 *	27.00 *	26.75 *
<b>TEXAS:</b>					

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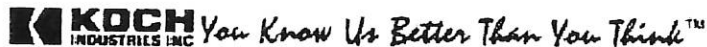
Texas Asphaltic	24.00 *	25.50 *	24.75 *	24.50 *
Texas Sweet	26.50 *	28.00 *	27.25 *	27.00 *
Giddings Sweet Texas	25.75 *	27.25 *	26.50 *	26.25 *
Gulf Coast Mix	25.75 *	27.25 *	26.50 *	26.25 *
North Texas Sweet	26.25 *	27.75 *	27.00 *	26.75 *
North Texas Sour	25.00 *	26.50 *	25.75 *	25.50 *
Pearsall Sweet	25.50 *	27.00 *	26.25 *	26.00 *
South Texas Heavy	26.00 *	27.50 *	26.75 *	26.50 *
South Texas Light Sweet	26.00 *	27.50 *	26.75 *	26.50 *
South Texas Valley Sweet	25.75 *	27.25 *	26.50 *	26.25 *
South Texas Sour	23.25 *	24.75 *	24.00 *	23.75 *
Upper Texas Gulf Coast	26.00 *	27.50 *	26.75 *	26.50 *
West Central Texas	26.50 *	28.00 *	27.25 *	27.00 *
West Central Texas Intermediate	26.00 *	27.50 *	26.75 *	26.50 *
West Texas/New Mexico Intermediate	26.75 *	28.25 *	27.50 *	27.25 *
West Texas/New Mexico Sour	23.25 *	24.75 *	23.50 *	23.25 *
<b>WYOMING:</b>				
Wyoming Sweet	26.25 *	27.75 *	27.00 *	26.75 *
Asphaltic Sour	22.75 *	24.25 *	23.50 *	23.25 *
Wyoming/Montana General Sour	22.25 *	23.75 *	23.00 *	22.75 *

Last Update: 02/06/01

The above prices are based on the use of 100% tank tables or automatic measuring equipment acceptable to us or the pipeline company receiving the oil for our account with customary adjustment of volume for temperature and full deduction for basic sediment and water. The foregoing schedule of prices is subject to deduction without notice for trucking, pipeline gathering, market adjustments, and other related charges on crude oil purchased from leases.

\*DENOTES CHANGE

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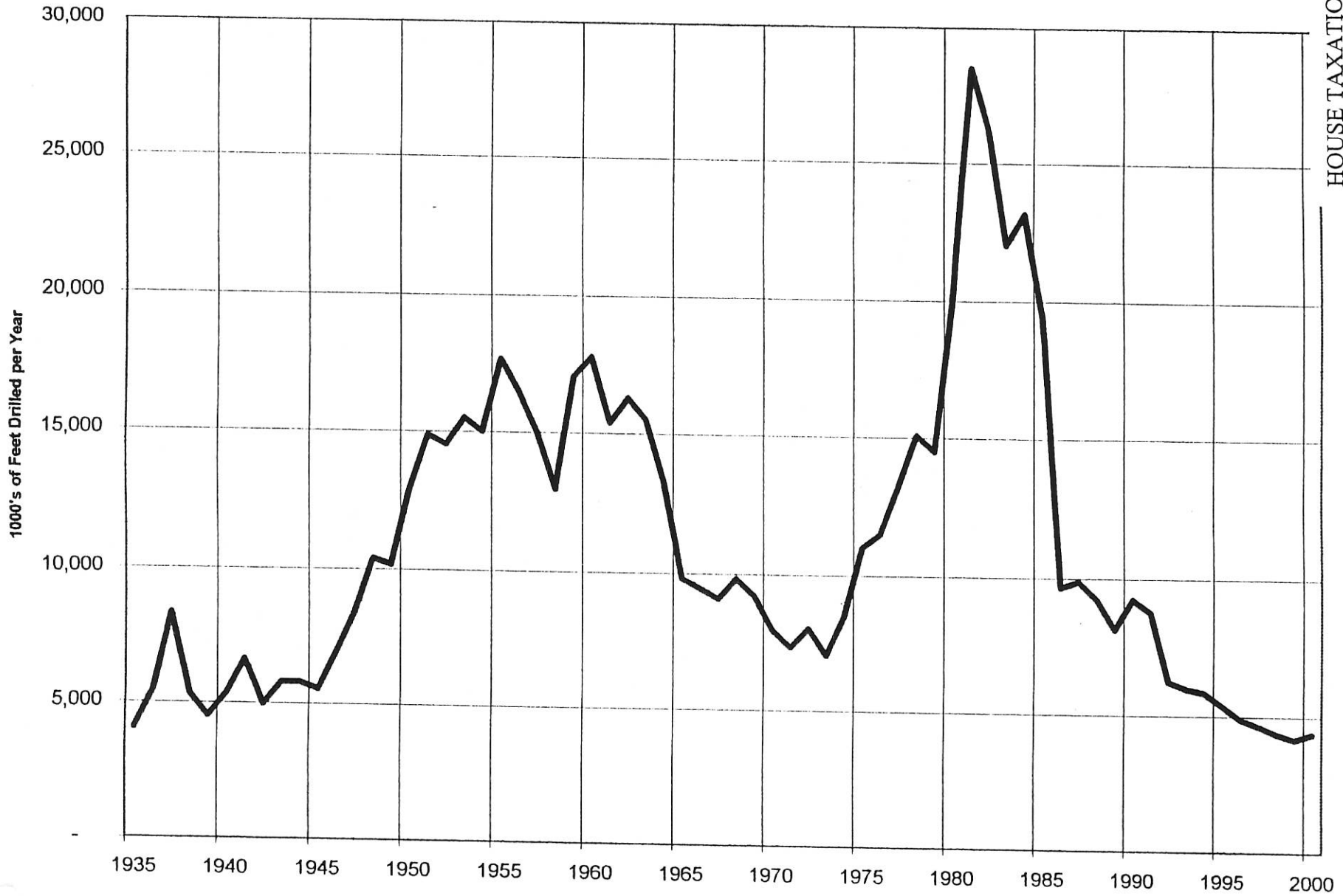
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Chart 3

Kansas Footage Drilled New Wells (Thousands of feet)



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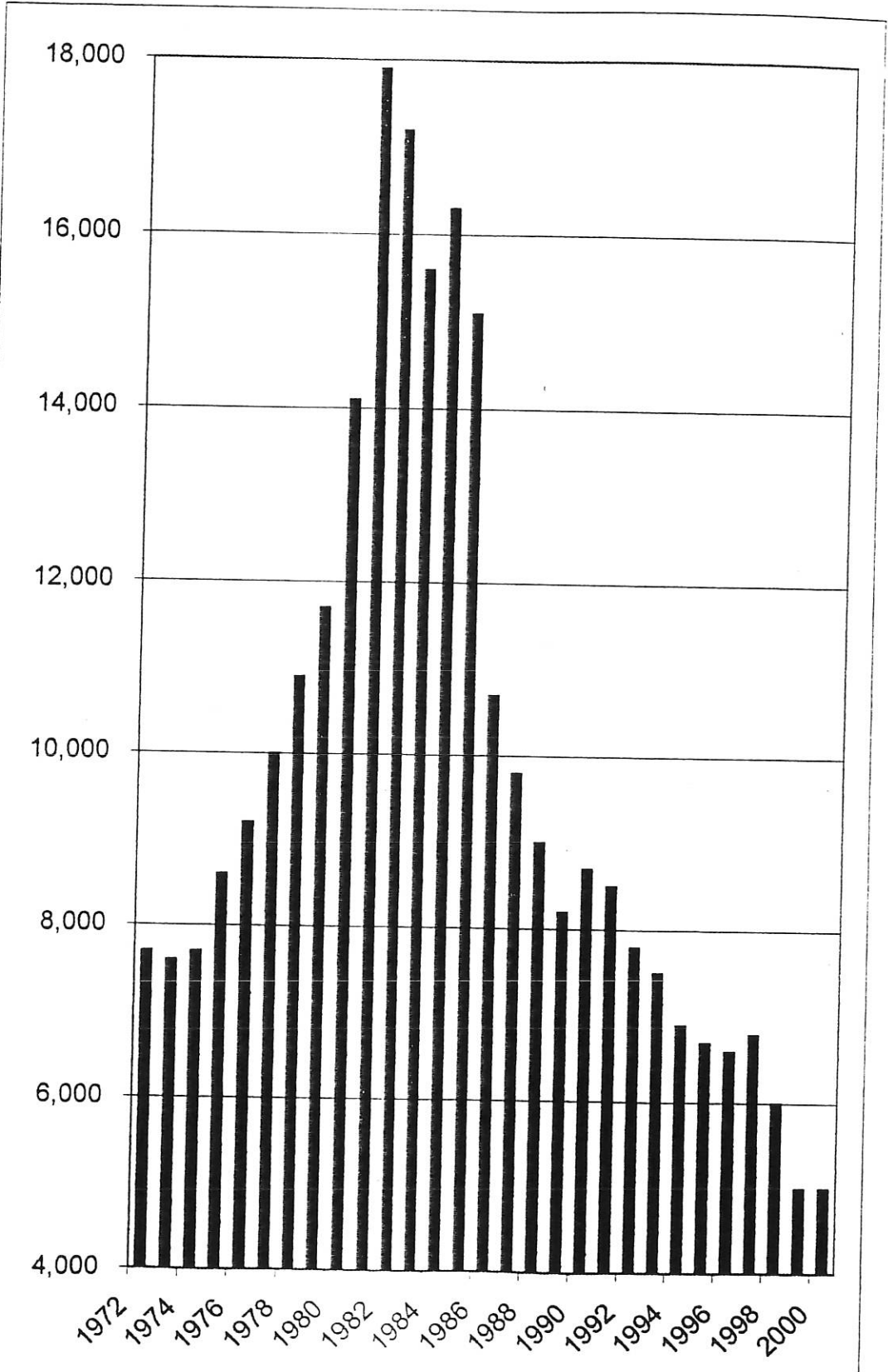
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### Kansas Oil & Gas Extraction Industry Employment

Year	# Workers
1972	7,700
1973	7,600
1974	7,700
1975	8,600
1976	9,200
1977	10,000
1978	10,900
1979	11,700
1980	14,100
1981	17,900
1982	17,200
1983	15,600
1984	16,300
1985	15,100
1986	10,700
1987	9,800
1988	9,000
1989	8,200
1990	8,700
1991	8,500
1992	7,800
1993	7,500
1994	6,900
1995	6,700
1996	6,600
1997	6,800
1998	6,000
1999	5,000
2000	5,000
Change	-35%
Peak	-72%



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