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*Image: RAM - Powell floating platform in deep water in the Gulf of Mexico. Photo taken by Larry Lee Photography.*



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# THE YEAR IN REVIEW: INTRODUCTION TO 2007 O&G IN YOUR STATE

## 2007: A Pivotal Year in the Unconventional Revolution in Natural Gas

Pete Stark, Ph. D., IHS

### Introduction:

Conventional wisdom at the beginning of 2007 opined that U.S. gas supplies could not be sustained by drilling increasing numbers of smaller volume - so called "unconventional" - tight sand and CBM gas wells. Liquefied natural gas (LNG) imports were championed as the solution to meet future U.S. natural gas demand. There were substantial international stranded gas resources and operators who were eager to convert these resources to LNG as a means to tap new markets. Investments poured into the development of large gas liquefaction trains in gas rich countries like Qatar, Nigeria, Algeria and Trinidad & Tobago and also into regasification terminals to supply North America with as much as 9 Bcf/d of LNG by 2009. But another quiet revolution was under way.

Adventurous U.S. operators launched pilot projects to determine if horizontal wells with staged hydraulic fracs that were successful in the Barnett shale could be applied to other gas rich shale source rocks. Successful tests were announced throughout the year in the Fayetteville shale in Arkansas, the Woodford shale in southeast Oklahoma, the Marcellus shale in Pennsylvania and exploration efforts were launched to test the potential of other gas rich shales throughout the U.S. and Canada. The results were dramatic. The average U.S. gas well initial potential test rate broke a 10 year decline and increased by a whopping 21% to 793 Mcf/d. Consequently, U.S. daily average gas well gas production grew by almost 4% even though the number of gas wells placed on-line decreased. This signaled the initial transformation of U.S. gas supplies to the unconventional shale gas era.

Uncertainties about the security of oil supplies and prices persisted throughout 2007. West Texas Intermediate (WTI) crude averaged \$51.26 per barrel during January 2007, but OPEC's 1.2 MMbop/d production cut of November 2006 finally took hold and oil prices reached an all-time high of \$99.16 per barrel on November 2, 2007. Correspondingly, U.S. crude oil stocks, which were well above the prior 5-year high volumes through the first half of the year, gradually decreased to historic average levels by end of the year. Gasoline stocks, on the other hand, were at or below historic 5-year lows for much of the year and helped to propel gasoline prices to near record highs while averaging \$2.81 per gallon for the year. Diesel fuel prices also surged and averaged \$2.88 per gallon for the year.

These elevated prices for transportation fuels stimulated public outrage with charges of price gouging and threats to impose new windfall taxes commanded attention in the headlines. Speculation about oil prices, driven by fears that global demand would outstrip supplies, also was blamed for the substantial increase in price at a time when U.S. oil stocks, at least, were at or above normal levels.

## Demand, Supplies and Prices

Unseasonably warm temperatures, which persisted through early January 2007, reduced demand for heating fuels and eased both oil and gas prices to start the year. With the return to normal weather, though, oil and gas demand and prices recovered. For the year, U.S. oil consumption was down slightly at 20.68 MMb/d but world demand increased by 1.2% and oil prices increased by 60% from \$55.21 at the end of January to \$88.31 in December.

During 2007, natural gas demand responded to moderate prices and surged by 6.2% (+3.73 Bcf/d) to 63.14 Bcf/d. Gas pipeline imports contributed 0.7 Bcf/d (+7%) and LNG imports contributed 0.5 Bcf/d (+32%) to the increase. Even so, natural gas price volatility diminished during the year and natural gas averaged \$7.04 per Mcf - up less than 2% from 2006. Many analysts felt that continued growth in LNG imports would be required to meet future U.S. gas demand. Even at the end of 2007 the potential of the emerging shale gas revolution was not fully appreciated.

## E&P Activity

U.S. exploration and production activity continued to expand as operators sought to test new unconventional gas play ideas and to expand oil production in response to the surge in oil prices. Seismic crew activity increased by 19% to average 70 crews and the Baker Hughes rig count increased by 7.2% to average 1,766.7 rigs during 2007. But total U.S. well completions were essentially flat with 2006, up only 43 wells to 48,216 completions. Oil directed drilling added 21 rigs to average 297 rigs while gas directed drilling added 94 rigs to average 1,466 rigs during 2007. In response to surging oil prices, the share of oil directed drilling increased from 15.5% to 19.5% of total rigs during the year. The Bakken shale oil play in the Williston Basin was the most closely watched emerging oil play. This play contributed most of North Dakota's increase of 93 oil completions (+24%) during 2007.

The 6.8% increase in gas directed drilling only translated to an overall 1.7% increase in U.S. gas well completions but the reported 30,866 gas wells established a new all-time record. Alabama, Arkansas, California, Colorado, Illinois, Indiana, Nebraska, New York, Ohio, Texas and Virginia reported the most significant increases in gas well completions. Coalbed methane (CBM) drilling, on the other hand, dropped by 14%. Regulatory issues were cited as the cause for a 40% decline (1,241 wells) in Powder River Basin CBM wells. Activity in the maturing CBM play in the McAlester Coal in Southeast Oklahoma also declined, off 260 wells (45%) from 2006. These decreases were partly offset by increased CBM well completions in Virginia, the San Juan and Las Animas Basins, the Cherokee coals in southeastern Kansas and in the Black Warrior Basin.

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A surge in horizontal drilling signaled the increasing importance of this technology to tap shale reservoirs. An average of 443 rigs – up 158 rigs or 55% from 2006 – were targeted to horizontal bore holes during 2007. Moreover, for the first time, over 25% of U.S. rigs were active on horizontal bore holes by the end of the year. This increased horizontal rig activity translated to an increase of 1,577 (+36%) horizontal wells to a total of 5,972 wells. Not surprisingly, the largest increases in horizontal were associated with established and emerging shale plays. The Fayetteville shale in Arkansas (+ 336 wells, + 314%), the Marcellus shale in Pennsylvania (+ 33 wells, + 550%), the Barnett shale in Texas (+ 1,037 wells, + 47%) and the Bakken shale in North Dakota (+ 77 wells, 23%) are examples.

### Exploratory Drilling

In harmony with seismic crew activity, U.S. wildcat drilling also increased by 19% during 2007. The 5,206 wildcat wells resulted in 971 oil successes and 2,871 gas successes for an astounding 74% success rate. This level of success is an artifact of applying the traditional Lahee wildcat well definition whereby a well drilled more than one mile from established production can receive a wildcat well designation. During 2007 most of the so-called wildcat wells were drilled to evaluate the extent of unconventional gas and oil resource plays where hydrocarbons are distributed throughout reservoirs with very large aerial extent. A new well classification system which recognizes the unique characteristics of the resource plays is warranted, but until an updated wildcat well definition is introduced and accepted an asterisk possibly should be appended to wildcat wells within established resource play boundaries.

During 2007 the number of wildcat oil successes increased by almost 21%. Significant increases were recorded in North Dakota's Bakken play, in a few traditional oil-rich parts of Kansas and Oklahoma and in Appalachian region oil trends extending from New York, Pennsylvania and Ohio into Kentucky. Wildcat gas successes increased by 27% as operators ramped up their evaluations of multiple widespread gas resource plays. Arkansas, with the expanding Fayetteville shale play and Appalachian basin states with expanding Devonian – Marcellus shale exploration – led the increases in wildcat gas successes. Gas exploration success rates declined, though, in several large gas producing states like New Mexico, Oklahoma, Texas and Wyoming with important conventional gas plays.

Onshore U.S. exploration during 2007 focused on the growing potential of shale plays. For oil it was the expanding Bakken shale play in the Parshall and Sanish field trend in North Dakota. For gas, continued success in the Barnett shale in the Ft. Worth and Strawn basins, Woodford shale in Oklahoma and Fayetteville shale in Arkansas highlighted exploration activity in established and expanding shale plays. New successes also highlighted the emerging potential of the Devonian / Marcellus shales in the giant Appalachian basin in New York, Pennsylvania and West Virginia. Operators also expanded efforts to define the

potential of new plays in the Penn shale of the Palo Duro basin, the Connesauga shale in the southern Appalachians, Barnett and Woodford shales or similar shales in the Delaware and Marfa basins and the Gothic shale in the southwest Colorado portion of the Paradox basin.

Frontier U.S. exploration yielded the largest 2007 conventional oil discoveries. In the northwest part of the NPR-A reserve on Alaska's North Slope, FEX L.P., a Talisman subsidiary, recorded the two largest onshore oil discoveries at its estimated 450 MMbo Aklaqyaaq and 150 MMbo Aklaq – 6 finds. Shell recorded two deepwater Gulf of Mexico successes at its Vicksburg prospect, with estimated 220 MMboe, and its Julia prospect, with estimated 150 MMboe.

### Production Trends - Oil

U.S. oil production continued to decline during 2007, dropping 1% or 17.2 MMbo. The Federal Offshore contributed the largest loss, - 9.7 MMbo, followed by lower production in Alaska, California, Oklahoma and Texas. The decline in the Offshore Gulf of Mexico could be short-lived as the largest decrease was reported for ultra-deep water (water depth greater than 5,000 ft.) where several large discoveries will be brought on-stream over the next few years. North Dakota, driven by the Bakken shale play, led the gainers, adding almost 5.5 MMbo. Others boosting their oil production included Louisiana, Mississippi and Kansas.

Oil production from marginal wells, those producing 15 bop/d or less, continued to contribute an important share of U.S. oil production. Marginal oil production during 2007 was down only 131,800 bo from 2006 and the 346,305 marginal wells (93% of the total) contributed 22% of overall U.S. oil production. Marginal well average daily production increased to 2.85 bop/d – the largest average in the past decade.

Heavy oil, 20.9 degree or less API gravity in this report, also is an important component of U.S. oil production. Oil gravity is only reported for eight states (Texas not included) plus the Federal Offshore so the numbers in this report are not complete. The nine entities that are reported, nevertheless, contributed 442.37 MMbo during 2007 or 27% of total U.S. oil production from 61,198 wells. Heavy oil recovery from thermal recovery projects in California is the most important onshore source of heavy oil. In California, 46,022 wells produced 210.1 MMbo during 2007. Various offshore fields added 194.7 MMbo of heavy oil from only 1,834 wells. Daily average production of 290 bop/d from offshore wells compares to 12.5 bop/d from onshore California.

### Production trends – Natural Gas

Total U.S. gas production increased for the second consecutive year to 20.013 Tcf, a 3.1% gain in spite of a 41 Bcf drop in casinghead gas production. Gas well gas production gains were widespread with 12 states reporting more than 1 Bcf gains while eight states reported production losses of 1 Bcf or more.

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Texas led the gainers with an increase of 567 Bcf – most from the Barnett shale in the Ft. Worth basin. Wyoming, with active tight sand developments at the Jonah field and Pinedale anticline, added 143 Bcf.

The Fayetteville shale play helped to boost Arkansas production by 70 Bcf and expanding tight sand developments in the Piceance basin helped to boost Colorado production by 56 Bcf. Mississippi, Oklahoma, Utah and West Virginia also added more than 25 Bcf in new gas production. These gains were offset in part by decreases in gas well gas production in the Federal Offshore (-81 Bcf), New Mexico (-58 bcf) and Alabama (-26 bcf). (Note: Gas well gas and casinghead or associated gas are reported separately and are combined to yield total gas production.) Technology played a critical role in enabling the breakthrough in recovering gas from shales. Lessons learned in the Barnett shale, especially the ability to boost initial potential flow rates and recoveries from horizontal bore holes with staged slick water fracs, were applied with even better results in the new emerging shale plays. Operators in the Woodford shale and Fayetteville shale plays found they could achieve substantial gains in well performance by increasing the number of frac stages and by increasing the length of the horizontal laterals in the shale reservoirs. Continuous process improvements allowed operators to increase their shale production at lower costs per Mcf. Essentially all of these innovations were driven by independent operators.

Gas production from marginal wells, those producing 90 Mcf/d or less, also contributed an important share of U.S. gas production. Marginal gas production during 2007 is estimated to have increased by about 50 Bcf to about 2,647 Bcf. Similar to the role of marginal oil, the estimated 278,000 marginal gas wells (77% of the total) contributed an important 14% share of U.S. gas well gas production.

Coalbed methane production increased for the eighth consecutive year even though the average production per well decreased from 262 Mcf/d during 2000 to only 107 Mcf/d per well during 2007. This pattern reflects the expansion of CBM production to new shallow reservoirs in the Powder River and Raton basins and the Cherokee coals on the Chataqua Platform in southeastern Kansas. The number of producing CBM wells more than doubled from 14,460 wells in 2000 to 44,613 wells in 2007. With \$6 per Mcf gas, operators could afford to drill and produce thousands of low cost, low volume CBM wells. During 2007, CBM wells generated an important 9.5% of U.S. gas well gas production. Moreover, the growing importance of unconventional gas was indicated by the fact that total unconventional gas production capacity was estimated to have reached 223 Bcf/d or almost 446% of U.S. gas production by the end of 2007.

## Managing Above Ground Considerations

The shift to unconventional gas resources reshaped several aspects of the E&P business. Nowhere was this more evident than in the Rockies region where the large numbers of oil and gas leases on Federal

lands were subject to multiple layers of regulations. Moreover, the substantial increases in drilling activity to increase production from CBM and tight sands heightened tensions among various stakeholders including community and environmental interests. These tensions led to conflicts and legal injunctions which slowed developments in several key gas producing areas.

To address these conflicts, operators forged innovative solutions that could become standard industry practices. At Jonah field in Wyoming, leading operators leveraged organized collaborative stakeholder groups to identify and address broad community and environmental concerns. Operators studied impacts of field development activities on wildlife migration and habitat and also established baselines for air and water pollution with resulting changes in rules and practices to minimize or mitigate damages.

Operators also introduced innovative operating practices and equipment to minimize environmental impacts while improving efficiencies and reducing costs. Drilling from pads and laying wooden pallets on roads and drill sites reduced surface damage. Operators also initiated early restoration of surface disturbances before development activities were completed. Delivering water by pipelines rather than by trucks and using natural gas powered vehicles and rigs reduced traffic hazards and air pollution while reducing costs. Produced water also was recycled as a means to reduce water usage. New generation drilling rigs on wheels and hydraulic skids were introduced to minimize time and cost to move rigs between wells on pads. Some operators drilled and completed all wells on a pad in stages – like setting surface casing in all wells before moving to the next stage – as a means to improve efficiencies and reduce costs. Others introduced central frac hubs which allowed them to service wells on multiple pads from a common site.

As the benefits of these innovations became apparent some operators began to apply many of these practices to expanding gas resource plays in other regions. In view of the continuing increase in public environmental awareness it is important for the oil and gas industry to realize that such practices may soon become the rule.

## Concluding Comment:

Three key factors were critical to stamping 2007 as a pivotal year in the unconventional gas revolution. First was the reversal in a decade-long decrease in the average U.S. peak well productivity. Second: Gas producers demonstrated they had the technologies to grow U.S. gas production capacity from unconventional reservoirs – even shales – without drilling an increasing number of gas wells. Third: U.S. operators also demonstrated they could adopt collaborative practices and innovative operating practices to deal with increasing “above ground” issues such as regulations, heightened environmental awareness and local community issues. These factors will be critical in shaping the U.S. energy future.



## NEW CONTENT FOR OUR 2008-2009 EDITION

Together with IHS the IPAA Statistics Department has continued to make changes to the data in this annual publication. Since the 2007-2008 Edition that was published in February of this year, there have been several notable additions including ten year charts of key industry data, petroleum and natural gas production broken out by congressional district, top ten producing county data for each state.

IPAA's mission in Washington, D.C. has become increasingly important given this year's developments in the area of energy legislation and regulation. Congressional and county data will help illustrate where our production is located in addition to where upstream jobs are concentrated. Members of Congress, educators and the media can see exactly where this country's oil and natural gas is being produced through the updated information on individual counties and Congressional Districts. In addition, ten-year charts have been added to show key trends in areas such as industry employment, marginal production, cost of drilling and federal and state revenues generated from the oil and gas industry. This publication seeks to provide both a yearly snapshot in addition to more historical data so key industry developments can be tracked over time. State trivia has also been updated to add some historical flavor to each state's

production landscape and illustrate the continued importance of each state's legacy fields and the role they continue to provide in today's production matrix.

Over two-thirds of our country's states produce oil and/or natural gas and new areas such as the Appalachian Marcellus trend are joining a resurgence of activity in areas such as the Bakken and in Kern County, California. It is also critical for the industry to show where oil and natural gas is used across this country as these fuels together provide almost two-thirds of our country's total energy mix and will continue to factor largely in the future for both this country and globally.

A special thanks to Dr. Phillip "Pete" Stark, Ashley Bailey and Laura Standley at IHS for all of their work in making this an improved product over the past three years. With their efforts the publication of the OPI has officially caught up with the data available and will now be on a regular annual schedule with future editions being released every fall.

Please let us know if you have specific ideas pertaining to qualitative improvements for future editions. You can send your comments to Fred Lawrence at IPAA ([flawrence@ipaa.org](mailto:flawrence@ipaa.org)). Thank you for your continued support of one of the industry's most informative publications.

## METHODOLOGY

- IHS uses multiple sources of data such as test files (Texas and Louisiana test information is used to allocate production volumes on a well completion level), injection files and plugging reports that is integrated with basic production volume data that is submitted by individual states. As a result production totals may differ from the Energy Information Administration data.
- IHS production data used on state pages includes peak production, total (dry) production, average production, average output per well, coalbed methane, heavy oil and marginal wells. IHS data used for summary production data. EIA data used on state pages for natural gas marketed production.
- EIA production data is used for determining wellhead value of production, cumulative crude oil wellhead value, state production rankings, and natural gas marketed production. State reserve data is from EIA. All price data comes from EIA or states.
- All Federal Offshore statistics include only those wells in Federal waters. All state well statistics include those offshore wells for each state. Federal Offshore statistics include only those wells in Federal waters.
- Deepest well statistics are based on total depth recorded from state completion reports. The only exceptions are minor occurrences where projected depth from permits have been used as a proxy for Deepest well statistics. Cumulative number of total wells drilled data comes from IHS.
- Well statistics for oil, gas and dry wells are all classes that were drilled with the intent to find hydrocarbons. Historical well counts do not include any miscellaneous wells, i.e., injection, storage, etc.
- Drilled footage is the actual drilled footage as reported. For sidetracks it is the footage from the whipstock or kickoff point to total depth. For wells deepened it is the footage from the original total depth to the new total depth.
- Marginal wells are defined as oil wells producing 15 or less barrels of oil and 90 or less thousand cubic feet of gas per day (previous editions used stripper wells producing less than 10 bbls of oil and 60 Mcf of gas per day).

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<http://bogc.dnrc.state.mt.us>

## Nebraska Oil & Gas Conservation Commission

P.O. Box 399  
Sidney, NE 69162  
(308) 254-6919  
<http://www.nogcc.ne.gov/>

## Nevada Department of Minerals

400 West King Street, Suite 106  
Carson City, NV 89703  
(702) 684-7040  
(702) 684-7052 Fax  
<http://minerals.state.nv.us/>

## New Mexico Energy, Minerals and Natural Resources Department

1220 S. St. Francis Drive  
Santa Fe, NM 87505  
(505) 476-3440  
(505) 476-3462 Fax  
<http://www.emnrd.state.nm.us/>

## New York State Department of Environmental Conservation

625 Broadway  
Albany, NY 12233-6500  
(518) 402-8076  
(518) 402-8060 Fax  
<http://www.dec.ny.gov>

## New York State Geological Survey (NYSGS)

3140 Cultural Education Center  
Albany, NY 12230  
(518) 474-5816  
Fax: (518) 486-2034  
[www.nysm.nysed.gov/research/geology](http://www.nysm.nysed.gov/research/geology)

## New York State Energy Research and Development Authority (NYSERDA)

17 Columbia Circle  
Albany, NY 12203-6399  
(518) 862-1090, ext. 3303 or  
1-866-NYSERDA ext. 3303  
Fax: (518) 862-1091  
<http://www.GetEnergySmart.org>

## North Dakota Industrial Commission

Oil and Gas Division  
600 East Boulevard Avenue, Dept 405  
Bismark, ND 58505-0840  
(701) 328-8020  
(701) 328-8022  
<http://www.dmr.nd.gov/oilgas>

# STATE ENERGY CONTACTS AND FEDERAL ORGANIZATIONS

## Ohio Department of Natural Resources

Division of Mineral Resources Management  
1855 Fountain Square Drive, Bldg. H-2  
Columbus, OH 43224-1362  
(614) 265-6633  
(614) 265-7999 Fax  
<http://www.dnr.state.oh.us>

## Oklahoma Corporation Commission Oil and Gas Division

P.O. Box 52000/2101 N. Lincoln Blvd.  
Oklahoma City, OK 73152-2000  
(405) 521-2211  
<http://www.occ.state.ok.us/>

## Oregon Department of Geology and Mineral Industries

800 NE Oregon St., #28, Room 965  
Portland, OR 97232  
(503) 731-4100  
(503) 731-4066 Fax  
<http://www.oregongeology.org/sub/default.htm>

## Pennsylvania Dept. of Environmental Resources

Oil and Gas Division  
Rachel Carson St. Ofc Bldg., Box 8765  
Harrisburg, PA 17105-8765  
(717) 772-2199  
(717) 772-2291 Fax  
<http://www.dep.state.pa.us/dep/dep-utate/minres/oilgas/oilgas.htm>

## South Dakota Dept. of Environment & Natural Resources

523 E. Capitol - Joe Foss Bldg.  
Pierre, SD 57501  
(605) 773-3151  
(605) 773-6035 Fax  
<http://www.state.sd.us/denr/denr.html>

## Tennessee Dept. of Geology & Conservation

Oil and Gas Board  
401 Church St., 13th Fl.  
Nashville, TN 37243  
(615) 532-0445  
<http://www.state.tn.us/environment/>

## Texas Railroad Commission Office of Information Services

P.O. Drawer 12967  
Austin, TX 78711-2967  
(512) 463-6887  
<http://www.rrc.state.tx.us/>

## Utah Department of Natural Resources

1594 West North Temple/P.O. Box 145801  
Salt Lake City, UT 84114-5801  
(801) 538-5277  
(801) 359-3940 Fax  
<http://dogm.nr.state.ut.us/>

## Virginia Division of Energy

Dept. of Mines, Minerals & Energy  
PO Drawer 900  
Big Stone Gap, VA 24219  
(276) 523-8146  
<http://www.mme.state.va.us/dgo/default.htm>

## Wyoming Dept. of Environmental Quality

122 West 25th Street - Herscheler Bldg.  
Cheyenne, WY 82002  
(307) 777-7937  
(307) 777-7682 Fax  
<http://deq.state.wy.us/>

## Wyoming Oil and Gas Conservation Commission

Box 2640/777 West First Street  
Casper, WY 82602  
(307) 234-7147  
(307) 234-5306 Fax  
<http://wogcc.state.wy.us/>

## Federal Organizations

### Energy Information Administration

Forrestal Building - Room 1F-048  
1000 Independence Avenue, S.W.  
Washington, D.C. 20585  
(202) 586-5000  
<http://www.eia.doe.gov>

### Federal Energy Regulatory Committee

888 First St., NE, Room 2-A  
Washington, D.C. 20426  
(866) 208-3372  
<http://www.ferc.gov>

### National Petroleum Technology Office

One West Third St., Suite 1400  
Tulsa, OK 74103-3519  
(918) 699-2000  
(918) 699-2005 Fax  
<http://www.netl.doe.gov/technologies/oil-gas>

### U.S. Department of Energy

Fossil Energy Dept.  
1000 Independence Avenue, S.W.  
Washington, D.C. 20585  
(202) 586-6503  
<http://www.fe.doe.gov>

### U.S. Department of Energy

Office of Scientific and Technical Information  
P.O. Box 62  
Oak Ridge, TN 37831  
<http://www.osti.gov/>

### U.S. Dept. of the Interior - MMS

Mail Stop 3000, P.O. Box 25165  
Denver, CO 80225  
(303) 231-3230  
<http://www.doi.gov/> & <http://www.mms.gov/>

### U.S. Dept. of the Interior

Bureau of Land Management  
1849 C Street NW, Rm. 5665  
Washington DC 20240  
Phone: 202-208-3801  
Fax: 202-208-5242 U.S.  
<http://www.blm.gov>

### Environmental Protection Agency

Ariel Rios Bldg. 1200 Penn. Ave., N.W., 3213A  
Washington, DC 20460  
(202) 260-2090  
<http://www.epa.gov>

### U.S. Geological Survey

12201 Sunrise Valley Dr.  
Reston, VA 20192  
(703) 648-4000  
<http://www.usgs.gov/>



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# NAPE EXPO

[www.napeexpo.com](http://www.napeexpo.com)



# COOPERATING OIL & GAS ASSOCIATIONS

**American Association of Professional Landmen**  
4100 Fossil Creek Blvd.  
Fort Worth, TX 76137-2791  
(817) 847-7700  
(817) 847-7704 Fax  
<http://www.landman.org>

**American Exploration & Production Council**  
1350 Eye St., NW, Suite 510  
Washington DC 20005  
(202) 652-2359  
<http://www.axpc.us/>

**Arkansas Independent Producers & Royalty Owners**  
1401 W. Capitol Ave., Suite 440  
Little Rock, AR 72201  
(501) 975-0565  
(501) 975-0566 Fax  
<http://www.aipro.org>

**Association of Energy Service Companies**  
10200 Richmond Avenue  
Houston, TX 77042  
(713) 781-0758  
(713) 781-7542 Fax  
<http://www.aesc.net>

**California Independent Petroleum Association**  
1112 I Street, Suite 350  
Sacramento, CA 95814  
(916) 447-1177  
(916) 447-1144 Fax  
<http://www.cipa.org>

**Colorado Oil & Gas Association**  
1776 Lincoln Street, Suite 1008  
Denver, CO 80203  
(303) 861-0362  
(303) 861-0373 Fax  
<http://www.coga.org>

**East Texas Producers & Royalty Owners Assoc.**  
P.O. Box 1700  
Kilgore, TX 75663  
(903) 984-8671  
(903) 984-1499 Fax

**Eastern Kansas Oil & Gas Association**  
P.O. Box 355  
Chanute, KS 66720  
(620) 431-1020  
(620) 431-9325 Fax  
<http://www.wkoga.org>

**FL Independent Petroleum Producers Assoc.**  
P.O. Box 230  
Pensacola, FL 32591  
(904) 434-6830  
(904) 434-6842 Fax

**Illinois Oil & Gas Association**  
P.O. Box 788  
Mount Vernon, IL 62864  
(618) 242-2857  
(618) 242-3418 Fax  
<http://www.ioga.com>

**Independent Oil & Gas Association of NY**  
5743 Walden Drive  
Lakeview, NY 14085  
(716) 627-4250  
(716) 627-4375 Fax  
<http://iogany.org>

**Independent Oil & Gas Assoc. of Pennsylvania**  
Northridge Office Plaza II  
Wexford, PA 15090-7906  
(724) 933-7306  
(717) 933-7310 Fax  
<http://www.iogapa.org>

**Independent Oil & Gas Assoc. of West Virginia**  
405 Capitol St., Suite 507  
Charleston, WV 25301  
(304) 344-9867  
(304) 344-5836 Fax  
<http://www.iogawv.com/>

**Independent Oil Producers' Agency**  
1228 N Street, Suite 26  
Sacramento, CA 95814  
(916) 442-7095  
(916) 442-5822 Fax

**Independent Oil Producers Assoc. Tri-State**  
2104 Lincoln Avenue  
Evansville, IN 47714  
(812) 479-9451  
(812) 476-2569 Fax

**Independent Petroleum Assoc. of Mountain States**  
518 17th Street, Suite 620  
Denver, CO 80202  
(303) 623-0987  
(303) 893-0709 Fax  
<http://www.ipams.org>

**Independent Petroleum Assoc. of New Mexico**  
529 West San Francisco St./PO Box 576  
Santa Fe, NM 87504  
(505) 984-0128  
(505) 622-8996 Fax  
<http://www.ipanm.org>

**Indiana Oil & Gas Association**  
Route 1, P.O. Box 197  
Bridgeport, IL 62417  
(618) 943-1010  
(618) 943-5301 Fax  
<http://www.inoga.org>

**International Association of Geophysical Contractors**  
2550 N. Loop, W, Suite 104  
Houston, TX 77092  
(713) 957-8080  
(713) 957-0008 Fax  
<http://www.iagc.org>

**Kansas Independent Oil & Gas Association**  
105 S. Broadway, Suite 500  
Wichita, KS 67202-4262  
(316) 263-7297  
(316) 263-3021 Fax  
<http://www.kioga.org>

**Kentucky Oil & Gas Association**  
#1-A Physicians Park  
Frankfort, KY 40601  
(502) 226-1955  
(502) 226-3626 Fax  
<http://kyoilgas.org>

**Liaison Committee of Cooperating Oil & Gas Associations**  
P.O. Box 1143  
Graham, TX 76450  
(940) 549-5261  
(940) 549-4241 Fax

**Louisiana Oil & Gas Association**  
P.O. Box 4069  
Baton Rouge, LA 70821-4069  
(800) 443-1433  
(225) 388-9561 Fax  
<http://www.loga.la>

**Louisiana Landowners Association**  
P.O. Box 44121  
Baton Rouge, LA 70804-4121  
(504) 927-5619  
(504) 928-7339 Fax  
<http://www.louisiana2000.com/LLA/>

**Michigan Oil & Gas Association**  
124 West Allegan St., Suite 1610  
Lansing, MI 48933  
(517) 487-1092  
(517) 487-0961 Fax  
<http://www.michiganoilandgasassociation.org>

**Mississippi Indep. Producers & Royalty Owners**  
P.O. Box 13393  
Jackson, MS 39236  
(601) 362-0502  
(601) 362-5397 Fax  
<http://www.mipro.ms>

**Montana Petroleum Association**  
601 Euclid Ave., P.O. Box 1186  
Helena, MT 59624-1186  
(406) 442-7582  
(406) 443-7291 Fax  
<http://montanapetroleum.org>

**National Association of Royalty Owners**  
P.O. Box 5779  
Norman, OK 73070-5779  
(405) 573-2972  
<http://www.naro-us.org>

**National Stripper Well Association**  
P.O. Box 18336  
Oklahoma City, OK 73154  
(405) 601-8002  
<http://www.nswa.us>

**New Mexico Oil & Gas Association**  
P. O. Box 1864, 500 Don Gaspar  
Santa Fe, NM 87504-1864  
(505) 982-2568  
(505) 982-0811 Fax  
<http://www.nmoga.org>

**New York State Oil Producers Association**  
37 Elm St., P.O. Box 364  
Eldred, PA 16731  
(814) 225-4659

**Northern Alliance of Independent Producers**  
P.O. Box 2422  
Bismarck, ND 58502  
(701) 224-5037  
(701) 224-5038  
<http://www.northernproducers.com>

**Ohio Oil & Gas Association**  
P.O. Box 535/1718 Columbus Rd., SW  
Granville, OH 43023-0535  
(740) 587-0444  
(740) 587-0446 Fax  
<http://www.ooga.org>

# COOPERATING OIL & GAS ASSOCIATIONS

**Oklahoma Independent Petroleum Association**  
3555 Northwest 58th St., Suite 400  
Oklahoma City, OK 73112  
(405) 942-2334  
(405) 942-4636 Fax  
<http://www.oipa.com>

**Panhandle Producers & Royalty Owners Assoc.**  
3131 Bell #209  
Amarillo, TX 79106  
(806) 352-5637  
(806) 359-1274 Fax  
<http://www.pproa.org>

**Pennsylvania Oil & Gas Association**  
106 Locust Grove Rd./P.O. Box 349  
Bainbridge, PA 17405  
(717) 426-0067  
(717) 426-3010 Fax

**Permian Basin Petroleum Association**  
P.O. Box 132/415 W. Wall, 1st Floor  
Midland, TX 79701  
(432) 684-6345  
(432) 684-7836 Fax  
<http://www.pbpa.info/>

**Petroleum Association of Wyoming**  
951 Werner Court, Suite 100  
Casper, WY 82601  
(307) 234-5333  
<http://www.pawyo.org>

**Petroleum Equipment Suppliers Association**  
9225 Katy Freeway, Suite 310  
Houston, TX 77024  
(713) 932-0168  
(713) 932-0497 Fax  
<http://www.pesa.org/>

**Petroleum Technology Transfer Council**  
16010 Barkers Point Lane, Suite 220  
Houston, Texas 77079  
(888) THE-PTTC/(281) 921-1720  
(281) 921-1723 Fax  
<http://www.pttc.org>

**Society of Indep. Professional Earth Scientists**  
4925 Greenville Avenue, Suite 1106  
Dallas, TX 75206  
(214) 363-1780  
(214) 363-8195 Fax  
<http://www.sipes.org>

**Tennessee Oil & Gas Association**  
750 Old Hickory Blvd., #285  
Brentwood, TN 37027  
(615) 263-1291  
(615) 263-1282 Fax  
<http://www.tennoil.com>

**Texas Alliance of Energy Producers**  
726 Scott Ave., Ste. 500  
Wichita Falls, TX 76301  
(800) 299-2998  
(940) 723-4132 Fax  
<http://www.texasalliance.org>

**Texas Independent Producers & Royalty Owners Association**  
515 Congress Avenue, Suite 910  
Austin, TX 78701  
(512) 477-4452  
(512) 476-8070 Fax  
<http://www.tipro.org>

**Virginia Oil & Gas Association**  
1007 East Watauga Ave.  
Johnson City, TN 37601  
(423) 926-2536  
(423) 378-1723 Fax  
[www.vaoilandgas.com](http://www.vaoilandgas.com)

**Wyoming Independent Producers Association**  
P.O. Box 2325  
Gillette, WY 82717-2325  
(307) 686-1081  
(307) 686-0560 Fax  
<http://www.energyconnect.com/wipa>

## Networking Associations

**Alaska Oil & Gas Association**  
121 W. Fireweed, Suite 207  
Anchorage, AK 99503  
(907) 272-1481  
(907) 279-8114 Fax  
<http://www.aoga.org>

**American Association of Petroleum Geologists**  
1444 S. Boulder Ave./ P.O. Box 979  
Tulsa, OK 74101  
(800) 364-2274  
(981) 560-2694  
<http://www.aapg.org>

**American Petroleum Institute**  
1220 L St. NW  
Washington, DC 20005-4070  
(202) 682-8000  
(202) 962-4776 Fax  
<http://www.api.org>

**Canadian Association of Petroleum Producers**  
Suite 2100, 350 7th Avenue S.W.  
Calgary, Alberta, Canada T2P 3N9  
(403) 267-1100  
(403) 261-4622 Fax  
<http://www.capp.ca>

**Illinois Petroleum Resources Board**  
P.O. Box 491  
Mount Vernon, IL 62864  
(618) 242-2861  
(618) 242-3418 Fax  
<http://www.iprb.com>

**International Association of Drilling Contractors**  
P.O. Box 4287/10370 Richmond Ave., Ste. 760  
Houston, TX 77210-4287/77042  
(713) 292-1945  
(713) 292-1946  
<http://www.iadc.org>

**Louisiana Mid-Continent Oil & Gas Association**  
801 North Blvd.  
Baton Rouge, LA 70802  
(225) 387-3205  
(225) 344-5502 Fax  
<http://www.lmoga.com>

**Mid-Continent Oil & Gas Association of OK**  
6701 N. Broadway, Suite 300  
Oklahoma City, OK 73116  
(405) 843-5741  
(405) 843-5746 Fax  
<http://www.okmoga.com>

**Nebraska Independent Oil & Gas Association**  
P.O. Box 427  
Kimball, NE 69145  
(308) 235-2906

**North Dakota Industrial Commission**  
Oil and Gas Division  
600 East Boulevard Avenue, Dept. 405  
Bismarck, ND 58505-0840  
(701) 328-8020  
(701) 328-8022  
<http://www.oilgas.nd.gov>

**North Dakota Petroleum Council**  
120 N 3rd St., P.O. Box 1395  
Bismarck, ND 58502-1395  
(701) 223-6380  
(701) 222-0006 Fax  
<http://www.ndoil.org>

**Public Lands Advocacy**  
1410 Grant St., Suite C-307  
Denver, CO 80203  
(303) 860-0212  
(303) 860-0310 Fax  
<http://www.publiclandsadvocacy.org>

**Society of Petroleum Engineers**  
P.O. Box 833836/222 Palisades Creek Drive  
Richardson, TX 75083  
(800) 456-6863  
(972) 952-9435  
<http://www.spe.org>

**Southeastern Ohio Oil & Gas Association**  
Rt. 1, Box 55-P  
Marietta, OH 45750  
(740) 374-3203  
(740) 374-2840 Fax  
<http://www.sooga.org>

**Southwest Kansas Royalty Owners Association**  
209 East 6th, Box 250  
Hugoton, KS 67951  
(620) 544-4333  
(620) 544-2230 Fax  
<http://www.swkroa.com>

**Texas Oil & Gas Association**  
304 W. 13th St.  
Austin, TX 78701  
(512) 478-6631  
(512) 472-3859 Fax  
<http://www.txoga.org>

**Utah Petroleum Association**  
533 West 2600 South, Suite 270  
Bountiful, UT 84010  
(801) 295-5399  
(801) 295-5477 Fax  
<http://www.utahpetroleum.org>

**West Virginia Office of Oil & Gas**  
1356 Hansford St.  
Charleston, WV 25301  
(304) 558-6075  
(304) 558-6047 Fax  
<http://www.wvdep.org/>

**Western States Petroleum Association**  
1415 L St., Ste. 600  
Sacramento, CA 95814  
(916) 444-9981  
<http://www.wsapa.org>

**West Virginia Oil & Natural Gas Association**  
P.O. Box 3231  
Charleston, WV 25332-3231  
(304) 343-1609  
<http://www.wvonga.com>



In 2006, IPAA launched its Education Center in Houston. The Education Center is dedicated to coordinating initiatives in public education and workforce expansion. The center's full-time director (Doris Richardson) is a former educator with over 15 years of public affairs experience both in the petroleum industry and private sector, and is chaired by Halliburton's Galen Cobb. IPAA continues to expand upon its commitment to education outreach through a variety of initiatives and programs including the Academy of Petroleum Exploration & Production Technology.

Since 2007, IPAA Education Center Director, Doris Richardson has established two high school engineering & geosciences academies, plus one global energy management program within the Houston Independent School District (HISD). HISD has committed to a total of five IPAA sponsored academies; with 2 more opening by fall 2010.

For more information, please visit the IPAA Education Center online at:  
<http://www.ipaa.org/education/default.asp>

## CONTACT INFORMATION FOR PARTICIPATING IPAA HIGH SCHOOL ENERGY MAGNET SCHOOLS:

### Global Energy Management Academy - Lamar High School – International Baccalaureate World School

3325 Westheimer  
Houston, TX 77098-1099  
713-522-5960  
713-535-3769 Fax  
<http://hs.houstonisd.org/lamarHS>

### Academy of Petroleum E & P Technology - Milby High School

1601 Broadway  
Houston, TX 77012-3789  
713-928-7401  
713-928-7474 Fax  
<http://hs.houstonisd.org/milbyhs/>

### Westside Engineering & Geosciences Academy

14201 Briar Forest Dr.  
Houston, TX 77077-1806  
281-920-8000  
281-920-8059 Fax  
<http://hs.houstonisd.org/westsideHS/>

### Memorial High School

935 Echo Lane  
Houston, TX 77024  
713-365-5110  
713-365-5138 Fax  
<http://mhs.springbranchisd.com/>

### Western Hills International Baccalaureate High School

3600 Boston Avenue  
Fort Worth, TX 76116  
817-560-5600  
817-560-5644 Fax  
<http://schools.fortworthisd.net/education/school>

### Taft Oil Technology Academy

701 7th Street  
Taft, CA 93268  
661.763.2300  
661.763.1445 Fax  
<http://www.taft.k12.ca.us/programs/oil>

## UNIVERSITY ENERGY AND GEOLOGY PROGRAMS (NON AFFILIATED):

### Alabama

#### The University of Alabama

Department of Geological Sciences-Geology  
Ernest Mancini, Geology Professor  
Office: (205) 348-4319  
Fax: (205) 348-0818  
Email: [faculty@geo.ua.edu](mailto:faculty@geo.ua.edu)  
Website: <http://www.geo.ua.edu/index.php>

### Alaska

#### University of Alaska-Fairbanks

College of Engineering and Mines-Geological  
Engineering  
Professor Gang Chen, Department Chair  
Office: (907) 474-7388  
Fax: (907) 474-6635  
Email: [fyminge@uaf.edu](mailto:fyminge@uaf.edu)  
Website: <http://www.alaska.edu/uaf/cem/ge/>

College of Engineering and Mines-Petroleum  
Engineering  
Professor Shirish Patil, Department Chair  
Office: (907) 474-7734  
Fax: (907) 474-5912  
Email: [fyipete@uaf.edu](mailto:fyipete@uaf.edu)  
Website: <http://www.alaska.edu/uaf/cem/pete/>

### Arkansas

#### Arkansas Tech University

Department of Physical Sciences-Geology  
Richard Cohoon, Dean and Professor of  
Geology  
Office: (479) 964-0816  
Fax: (479) 964-0837  
Email: [rcohoon@atu.edu](mailto:rcohoon@atu.edu)  
Website: <http://pls.atu.edu/physci/geology>

#### University of Arkansas Community College at Morrilton

Petroleum Technology Degree Program-  
Technical Certificate and A.A.S  
Jeff Lambert, Petroleum Technology Professor  
Office: (501) 977-2178  
Fax: (501) 977-2134  
Email: [lambert@uaccm.edu](mailto:lambert@uaccm.edu)  
Website: <http://www.uaccm.edu/Academics/Academics.htm>

### California

#### University of Southern California

Viterbi School of Engineering-Petroleum  
Engineering  
Iraj Ershaghi, Ph.D., P.E., Program Director  
Office: (213) 740-0322  
Fax: (213) 740-0324  
Email: [peteng@usc.edu](mailto:peteng@usc.edu)  
Website: <http://www.cisofit.usc.edu>

#### Stanford University

Department of Energy Resources Engineering  
Louis Durlofsky, Chairman and Professor  
Office: (650) 723-4142  
Fax: (650) 725-2099  
Email: [lou@stanford.edu](mailto:lou@stanford.edu)  
Website: <http://pangea.stanford.edu/ERE/about/>

#### California State University, Long Beach

Department of Geological Sciences-Petroleum  
Geology  
Stan Finney, Department Chair  
Office: (562) 985-8637  
Fax: (562) 985-8638  
Email: [scfinney@csulb.edu](mailto:scfinney@csulb.edu)  
Website: <http://www.cnsi.csulb.edu/departments/geology/programs/graduate/petroleumgeology.shtml>

#### California State University, Bakersfield

Department of Geology-Petroleum Geology  
Dr. Dick Baron, Department Chair  
Office: (661) 654-3044  
Fax: (661) 654-2040  
Email: [dbaron@csu.edu](mailto:dbaron@csu.edu)  
Website: <http://www.csu.edu/geology/>

### Colorado

#### Colorado School of Mines

Department of Petroleum Engineering-  
Petroleum Engineering  
Dr. Craig W. Van Kirk, Department Head  
Office: (303) 273-3740  
Fax: (303) 273-3189  
Email: [cvankirk@mines.edu](mailto:cvankirk@mines.edu)  
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# STATE EDUCATION PROGRAMS

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Website: <http://www.mines.edu/academic/geology/>

## Colorado Mountain College

Process Technology-Petroleum Technology (Certificate)  
John Prater, Associate Professor of Energy  
Office: (970) 625-6947  
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Email: jprater@coloradomtn.edu  
Website: [http://catalog.coloradomtn.edu/docs/0809/AAS\\_Cert\\_ProcessTech.pdf](http://catalog.coloradomtn.edu/docs/0809/AAS_Cert_ProcessTech.pdf)

## Mesa State College

Department of Business-Landman/Energy Management Concentration  
Dr. Morgan Bridge, Business Department Head  
Office: (970) 248-1169  
Fax: (970) 248-1730  
Email: mbridge@mesastate.edu  
Website: <https://www.mesastate.edu/schools/sbps/busadm/Index.htm>

## Western State College

Department of Business Administration, Professional Land and Resource Management  
Ed Grauke, Director and Moncrief Chair  
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Email: egrauke@western.edu  
Website: <http://www.western.edu/academics>

Department of Geology-Petroleum Geology  
Ronald J. Hill, Moncrief Chair in Petroleum Geology  
Office: (970) 943-2145  
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Website: <http://www.western.edu/academics>

## Colorado Northwestern Community College

Process Technology-Oil and Gas Associates Degree  
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Office: (970) 675-3375  
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Email: Conrad.stanley@cncc.edu  
Website: [http://www.cncc.edu/programs/process\\_technology/default.html](http://www.cncc.edu/programs/process_technology/default.html)

## Kansas

### The University of Kansas

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## Fort Hays State University

Department of Geosciences-Petroleum Geology  
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### University of Louisiana at Lafayette

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Website: [http://www.uhd.edu/academic/colleges/business/mmba/energy\\_min\\_index.htm](http://www.uhd.edu/academic/colleges/business/mmba/energy_min_index.htm)

## **University of Texas-Austin Kilgore College**

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## **Kilgore College**

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Website: <http://www.panola.edu/instruction/srtc/index.html>

## **Midland College**

Petroleum Professional Development Center-Variety Studies/Certifications  
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Website: <http://www.midland.edu/~ppdc/>

## **Del Mar College**

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Website: <http://www.delmar.edu/teched/process.php>



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### **Glenville State College**

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Technology  
Charles Sypolt, Department Chair  
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Email: Charles.Sypolt@glenville.edu  
Website: [http://www.glenville.wvnet.edu/  
NRMLandmanTech\\_BS3.asp](http://www.glenville.wvnet.edu/NRMLandmanTech_BS3.asp)

### **West Virginia University**

College of Engineering and Mineral  
Resources-Petroleum and Natural Gas  
Engineering  
Sam Ameri, Department Chair and  
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Office: (304) 293-7682  
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Email: samuel.ameri@mail.wvu.edu  
Website: [http://www.pnge.cemr.wvu.edu/  
welcome/](http://www.pnge.cemr.wvu.edu/welcome/)

## *Wyoming*

### **Western Wyoming Community College**

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Gas Technology  
Paul Johnson, Division Chair  
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Website: [http://www.wwcc.wy.edu/  
academics/oilgastech/](http://www.wwcc.wy.edu/academics/oilgastech/)

### **University of Wyoming**

Department of Chemical and Petroleum  
Engineering-Petroleum Engineering  
H. Gordon Harris, Department Head and  
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Email: harrishg@uwyo.edu  
Website: [http://www.weng.uwyo.edu/  
chemical/](http://www.weng.uwyo.edu/chemical/)

## *Canada*

### **University of Calgary**

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Land Management  
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Website: [http://haskayne.ucalgary.ca/  
undergrad/plma](http://haskayne.ucalgary.ca/undergrad/plma)

# ADDITIONAL ENERGY EDUCATION & EMPLOYMENT RESOURCES

## Association of Desk and Derrick Clubs

5153 E 51st St., Ste. 107  
Tulsa, OK 74135  
(918) 622-1749  
(918) 622-1675 Fax  
Email: [adotulsa@swbell.net](mailto:adotulsa@swbell.net)  
<http://www.addc.org>

## Campbell Creek Science Center Bureau of Land Management (BLM), Alaska

222 W 7th Avenue, #13  
Anchorage Alaska 99513  
(907) 271-5960  
Fax: (907) 271-3684  
<http://www.blm.gov/ak/getenergized.html>

## California Energy Commission "Energy Quest"

1516 9th Street, MS-29  
Sacramento, CA 95814  
(916) 654-4989  
Fax: (916) 653-5590  
<http://www.energyquest.ca.gov/>

## BP - California Community Relations "A+ for Energy"

6 Centerpointe Drive  
La Palma, CA 90623  
<http://www.aplusforenergy.org/Public/ApplyNow.aspx/>

## Western States Petroleum Association (WSPA)

1415 L Street, Suite 600  
Sacramento, CA 95814  
(916) 498-7750  
(916) 444-5745 Fax  
<http://www.wspa.org>

## Colorado School of Mines "Denver Earth Science Project"

Office of Special Programs & Continuing  
Education  
Golden, CO 80401  
(303) 273-3621  
Fax: (303) 273-3314  
[http://www.mines.edu/Outreach/Cont\\_Ed/desp/desp.html](http://www.mines.edu/Outreach/Cont_Ed/desp/desp.html)

## Northern Montana Independent Oil and Gas Association

P.O. Box 488  
Cut Bank, MT 59427  
(406) 873-9000  
Fax: (406) 873-5207

## Environmental Education Council of Ohio

P.O. Box 1004  
Lancaster, OH 43130  
(740) 653-2649  
Fax: (740) 653-6100  
<http://www.eeco-online.org>

## The NEED Project

8408 Kao Circle  
Manassas, VA 20110  
(703) 257-1117  
<http://www.need.org>

## Ohio Energy Project (OEP)

670 Enterprise Drive, Suite A  
Lewis Center, OH 43035  
(614) 785-1717  
Fax: (614) 785-1731  
<http://www.ohioenergy.org>

## Ohio Oil & Gas Energy Education Program (OOGEEP)

1718 Columbus Road, S.W.  
P.O. Box 187  
Granville, OH 43023-0535  
(740) 587-0444  
Fax: (740) 587-0446  
<http://www.oogEEP.org>

## Oklahoma Commission on Marginally Producing Oil and Gas Wells

3535 Northwest 58th Street, Suite 870  
Oklahoma City, OK 73112  
(405) 604-0460 or (800) 390-0460  
Fax: (405) 604-0461  
<http://www.marginalwells.com>

## Oklahoma Energy Resources Board (OERB)

3555 N.W. 58th, Suite 430  
Oklahoma City, OK 73112  
(405) 942-5323 or (800) 664-1301  
Fax: (405) 942-3435  
<http://www.oerb.com>

## A+ for Energy (Texas)

BP America Inc.  
3401 Palmer Highway, Room 445D  
Texas City, TX 77590  
<http://www.aplusforenergy.org/Texas>

## Offshore Energy Center (OEC)

200 North Dairy Ashford, Suite 6220  
Houston, TX 77079  
(281) 679-8040  
Fax: (281) 544-2441  
<http://www.oceanstaroec.com>

## Wisconsin K-12 Energy Education Program (KEEP)

403 LRC, UWSP  
Stevens Point, WI 54481  
(715) 346-4770  
Fax: (715) 346.4698  
<http://www.uwsp.edu/cnr/wcee/keep/index.htm>

## Federal Energy Regulatory Commission: A Students' Corner

<http://www.ferc.gov/students/index.htm>

## Center for Energy Studies

Louisiana State University, Energy,  
Coast and Environment Building,  
Nicholson Drive Extension, Baton  
Rouge, LA 70803  
(225) 578-4400  
<http://www.enrg.lsu.edu/>

## Sarkeys Energy Center, University of Oklahoma

100 East Boyd, Room 510  
Norman, OK 73019  
(405) 325-3821  
<http://www.sec.ou.edu/index.php>

## East Texas Historical Association

<http://www.easttexashistorical.org/>

## Wyoming State Historical Society

PMB #184 1740H Dell Range Blvd.  
Cheyenne, WY 82009  
<http://wyshs.org/index.html>

## Energy Kids

Energy Information Administration  
<http://tonto.eia.doe.gov/kids/>

## U.S. Dept of Energy - For Consumers

<http://www.energy.gov/forconsumers.htm>

## U.S. Dept of Energy - for Students and Kids

<http://www.energy.gov/forstudentsandkids.htm>

## U.S. Dept of Energy - for Researchers

<http://www.energy.gov/forresearchers.htm>

## U.S. Dept of Energy - for Employees

[http://www.energy.gov/for\\_employees.htm](http://www.energy.gov/for_employees.htm)

# YOUNG PROFESSIONALS IN ENERGY CHAPTERS

*Young Professionals in Energy Chapters Founded in 2005, YPE is a global network of young professionals who seek to engage with peers in the energy industry.*  
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 (202) 857-4702  
[chazen@ipaa.org](mailto:chazen@ipaa.org)



The American Oil & Gas Historical Society (AOGHS) believes the fascinating history of the nation's petroleum industry offers a vital context for teaching today's young people. AOGHS, a 501(c)-3 nonprofit organization, is dedicated to preserving the history of U.S. exploration and production by providing advocacy for organizations that preserve that history through exhibition, material preservation – and especially educational programming. AOGHS publishes a quarterly newsletter, the *Petroleum Age*, and hosts an annual Energy Education Conference & Field Trip. The conference brings together education program practitioners – those who teach the teachers. Become an AOGHS member and help us promote state and national energy education programs. To support this effort, please copy and mail this form with your contribution to AOGHS, 1201 15th St., NW, Suite 300, Washington, DC 20005, or fax it to (202) 857-4799. Questions? Call Bruce Wells, Executive Director at (202) 857-4785.

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## Oil and Gas Museums

**Arkansas Museum of Natural Resources**  
(870) 863-6113  
<http://www.amnr.org/>

**Arkansas Museum of Natural Science**  
(870) 725-2877  
<http://www.msstate.edu/dept/geosciences>

**Brea Museum and Heritage Center - CA**  
(714) 256-2283  
<http://www.breamuseum.org/>

**California Oil Museum**  
(805) 933-0076  
<http://www.oilmuseum.net/>

**Kern County Museum - CA**  
(661) 852-5000  
<http://www.kcmuseum.org/>

**Olinda Historic Museum and Park - CA**  
(714) 990-7600  
<http://www.ci.brea.ca.us/>

**West Kern County Museum - CA**  
(661) 765-6664  
<http://www.westkern-oilmuseum.org/>

**Denver Museum of Nature & Science**  
(303) 322-7009  
<http://www.dmns.org/main/en/>

**Illinois Oilfield Museum & Resource Center**  
[http://www.theonlyoblong.com/oil\\_field/oblong\\_oilfield.html](http://www.theonlyoblong.com/oil_field/oblong_oilfield.html)

**Museum of Science & Industry - IL**  
Chicago - IL  
(773) 684-1414  
<http://www.msichicago.org/index.html>

**Kansas Oil Museum and Hall of Fame**  
(316) 321-9333  
<http://www.kansasoilmuseum.org/>

**Oil Patch Museum - KS**  
(785) 483-3637

**Louisiana State Oil and Gas Museum**  
(318) 995-6845  
<http://www.sos.louisiana.gov/tabid/242/default.aspx>

**International Petroleum Museum & Exposition - LA**  
(985) 384-3744  
<http://www.rigmuseum.com/>

**Pioneer Oil Museum - NY**  
(585) 373-6035  
<http://www.pioneer-oil-museum.com/about-us.html>

**Wood County Historical Center & Museum - OH**  
(419) 352-0967  
<http://www.woodcountyhistory.org>

**Anadarko Basin Museum of Natural History - OK**  
(580) 243-0437  
<http://www1.itlnet.net/web/route66/page4.html>

**Bartlesville Area History Museum - OK**  
(918) 337-5336  
<http://www.bartlesvillehistory.com/>

**Healdton Oil Museum-OK**  
(405) 229-0317  
[http://www.healdtonok.org/pages.php?section=oil\\_museum](http://www.healdtonok.org/pages.php?section=oil_museum)

**Oklahoma Historical Society**  
(405) 521-2491  
<http://www.okhistory.org/>

**Greater Seminole Area Oil & Historical Museum - OK**  
(405) 382-1500  
<http://www.seminoleoklahoma.com/museum/>

**Drake Well Museum - PA**  
(814) 827-2797  
<http://www.drakewell.org>

**The Oil Heritage Region - PA**  
(800) 483-6264, Ext. 18  
<http://www.oilregion.org/>

**Penn-Brad Oil Museum - PA**  
(814) 368-5574  
<http://pennbradoilmuseum.com/>

**Petroleum History Institute - PA**  
<http://www.petroleumhistory.org/>

**East Texas Oil Museum - TX**  
(903) 983-8295  
<http://www.easttexasoilmuseum.com/index.html>

**Houston Museum of Natural Science**  
(713) 639-4629  
<http://www.hmns.org/Index.asp>

**Panhandle-Plains Historical Museum - TX**  
(806) 651-2244  
<http://www.panhandleplains.org/>

**Spindletop - Gladys City Boomtown Museum - TX**  
(409) 835-0823  
<http://spindletop.org/default.htm>

**Texas Energy Museum**  
(409) 833-5100  
<http://www.texasenergymuseum.org/front2.htm>

**Ocean Star Offshore Drilling Rig and Museum - TX**  
(409) 766-STAR  
<http://www.oceanstaroec.com/Default.htm>

**West Virginia Oil & Gas Museum**  
(304) 485-5446  
<http://www.little-mountain.com/oilandgasmuseum>

**Choctaw County Historical Museum - AL**  
<http://www.ohwy.com/al/c/choccohm.htm>

**Hathaway Ranch and Oil Museum - CA**  
(562) 777-3444  
<http://www.hathaworld.com/hrm/index.html>

**Santa Barbara Maritime Museum - CA**  
(805) 962-8404  
<http://www.sbmm.org/index.php>

**Wabash County Museum - IL**  
(618) 262-8774  
<http://www.museum.wabash.il.us/>

**Wood River Refinery History Museum - IL**  
(618) 255-3718  
<http://www.wrrhm.org/index.htm>

**Red Crown Mini-Museum - IN**  
<http://www.oldgas.com/info/redcrown.htm>

**Trump's Texaco Museum - IN**  
[http://www.southernin.com/Pages/archives/april\\_00/henry\\_county.html](http://www.southernin.com/Pages/archives/april_00/henry_county.html)

**Butler County Historical Center & Kansas Oil Museum**  
(316) 321-9333  
<http://kansasoilmuseum.org/index.cfm>

**Hill City Oil Museum - KS**  
(785) 421-2854  
[http://www.geocities.com/RainForest/Vines/5320/oil\\_.html](http://www.geocities.com/RainForest/Vines/5320/oil_.html)

**Independence Historical Museum - KS**  
(620) 331-3515  
<http://www.comgen.com/~museum/>

**Norman No. 1 Museum - KS**  
<http://www.neodygrads.com/pages/museum/norman.html>

**Stevens County Gas & Historical Museum - KS**  
<http://skyways.lib.ks.us/towns/Hugoton/museum.html>

**Henry Ford Museum & Benson Ford Research Center - MI**  
(313) 982-6070  
<http://www.hfmgv.org/museum/default.asp>

**Farmington Museum - NM**  
(505) 599-1174  
<http://www.farmingtonmuseum.org/>

**Allen County Museum - OH**  
(419) 222-9426  
<http://www.allencountymuseum.org/>

**Hancock Historical Museum - OH**  
(419) 423-4433  
<http://www.hancockhistoricalmuseum.org/>

**Ken Miller Supply's Oil, Gas, Car, Truck and Agriculture Museum - OH**  
(330) 496-4024 or (330) 567-5930  
<http://www.shreveohio.com/thisweek.htm>

# OIL AND GAS MUSEUMS

## Oilfield Engine Society - OH

(937) 456-9387  
http://www.oilfieldengine.com

## Ames Astrobleme Museum - OK

http://amescrater.com/about.htm

## Cherokee Strip Regional Heritage Center - OK

(580) 237-1907  
http://www.regionalheritagecenter.org/01.htm

## Conoco Museum - OK

(580) 765-8687  
http://www.conocomuseum.com/index.htm

## Drumright Community Historical Museum - OK

(918) 352-3002  
http://drumrighthistoricalsociety.org/

## Frank Phillips Home - OK

(918) 336-2491  
http://www.frankphillipshome.org/

## Greater Southwest Historical Museum - OK

(580) 226-3857  
http://visitors.ardmore.org/

## Kerr Conference Center & Museum - OK

(918) 647-9579  
http://www.carlalbert.edu/kerr\_center/

## Marland Oil Museum - OK

http://www.marlandmansion.com/

## Nowata County Historical Museum - OK

(918) 273-1191  
http://www.ohwy.com/ok/y/ynowhimu.htm

## Oklahoma History Center

(405) 522-5248  
http://www.okhistorycenter.org/

## Oklahoma Oil Museum

(405) 382-1500  
http://www.seminoleoklahoma.com/museum/

## Phillips Petroleum Company Museum - OK

(918) 661-1305  
http://www.phillips66museum.com/index.htm

## Sam Noble Oklahoma Museum of Natural History

(405) 325-4712  
http://www.snomnh.ou.edu/index.shtml

## Sarkeys Energy Center, University of OK

(405) 325-3821  
http://www.sec.ou.edu/index.php

## SEG Geoscience Center & Virtual Museum - OK

(918) 497-5566  
http://www.mssu.edu/seg-vm/

## Stephens County Historical Museum - OK

(580) 252-0717  
http://www.shopoklahoma.com/museums.htm

## Tulsa Historical Society - OK

(918) 712-9484  
http://www.tulsaistory.org/learn/earlytulsa/oil.htm

## Woolaroc Museum - OK

http://www.woolaroc.org/

## Barbara Morgan Harvey Center for the Study of Oil Heritage - PA

http://www.web.clarion.edu/BMHarveyCenter/HCVBuild/Harvey\_Center\_Web\_Site/About\_Barbara\_Morgan\_Harvey.html

## Coolspring Power Musuem - PA

http://www.coolspringpowermuseum.org/

## Oil Region Alliance of Business, Industry & Tourism, Inc - PA

(800) 483-6264  
http://www.oilregion.org/

## Pumping Jack Museum - PA

(724) 867-0030  
http://www.pumpingjack.org/

## Simpler Times Museum - PA

(814) 484-3483  
http://www.navr.org/museums.html

## Venango Museum of Art, Science and Industry - PA

http://www.venangomuseum.org/

## Bob Bullock Texas State History Museum - TX

(866) 369-7108  
http://www.thestoryoftexas.com/

## Carson Country Square House Museum - TX

(805) 537-3524  
http://www.squarehousemuseum.org/

## Central Texas Oil Patch Museum - TX

(830) 875-1922  
http://www.oilmuseum.org/Welcome.html

## Depot Museum - TX

(903) 657-4303  
http://www.depotmuseum.com/index.html

## Felty Outdoor Oil Museum - TX

http://www.trailsandtales.org/index.htm

## Fort Worth Museum of Science and History - TX

(817) 255-9300  
http://www.fwmuseum.org/home/index.html

## Gaston Museum - TX

(903) 847-2205  
http://www.gastonmuseum.org/

## Heritage Museum of Montgomery County - TX

(936) 539-6873  
http://www.heritagemuseum.us/

## Hutchinson County Historical Museum - TX

http://www.hutchinsoncountymuseum.org/index.html

## London Museum - TX

(903) 895-4602  
http://www.nlse.org

## Million Barrel Museum - TX

http://www.monahans.org/new/chamber/museums.html

## Museum of the Plains - TX

(806) 435-6400  
http://www.museumoftheplains.com/

## Panhandle-Plains Historical Museum - TX

http://www.panhandleplains.org

## Petroleum Museum - TX

http://www.petroleummuseum.org/index.html

## Ranger Historical Preservation Society - TX

(254) 647-5353  
http://www.txbusiness.com/rhps/

## Van Area Oil & Historical Museum - TX

(903) 963-5435  
http://www.vantexas.com/history.html

## W. K. Gordon Center for Industrial History of Texas - TX

(254) 968-1886  
http://www.tarleton.edu/~gordoncenter/index.html

## Hot Springs County Museum & Cultural Center - WY

(307) 864-5183  
http://hschistory.org

## Pioneer Association Museum of the American West - WY

(307) 332-4137  
http://www.wyomingtourism.org/overview/Salt-Creek-Oil-Museum/4155

## Salt Creek Museum - WY

(307) 437-6513  
http://wyshs.org/mus-saltcreek.htm

## Tate Geological Museum - WY

(307) 268-2447  
http://www.caspercollege.edu/tate

*Oil and Gas museum information compiled by the American Oil and Gas Historical Society. For additional details, visit [www.aoghs.org](http://www.aoghs.org).*



# STATE RANKINGS

<b>Crude Oil Wells Drilled</b>	<b>Natural Gas Wells Drilled</b>	<b>Crude Oil Production</b>	<b>Natural Gas Production</b>
1 Texas	1 Texas	1 Federal Offshore	1 Texas
2 Oklahoma	2 Oklahoma	2 Texas	2 Federal Offshore
3 California	3 West Virginia	3 Alaska	3 Wyoming
4 Kansas	4 Pennsylvania	4 California	4 Oklahoma
5 Louisiana	5 Louisiana	5 Louisiana	5 New Mexico
6 Illinois	6 Wyoming	6 Oklahoma	6 Louisiana
7 New Mexico	7 New Mexico	7 New Mexico	7 Colorado
8 Ohio	8 Colorado	8 Wyoming	8 Alaska
9 Wyoming	9 Kansas	9 North Dakota	9 Utah
10 Pennsylvania	10 Federal Offshore	10 Kansas	10 Kansas
11 Kentucky	11 Ohio	11 Montana	11 California
12 Federal Offshore	12 Kentucky	12 Colorado	12 Alabama
13 New York	13 Michigan	13 Mississippi	13 Arkansas
14 Michigan	14 Montana	14 Utah	14 Michigan
15 Montana	15 New York	15 Illinois	15 West Virginia
16 West Virginia	16 Alabama	16 Alabama	16 Pennsylvania
17 Arkansas	17 Arkansas	17 Arkansas	17 Montana
18 Colorado	18 Utah	18 Ohio	18 Virginia
19 Mississippi	19 California	19 Michigan	19 Kentucky
20 North Dakota	20 Virginia	20 Pennsylvania	20 Ohio
21 Utah	21 Mississippi	21 Kentucky	21 Mississippi
22 Indiana	22 Tennessee	22 Nebraska	22 New York
23 Nebraska	23 Illinois	23 Florida	23 North Dakota
24 Alaska	24 Indiana	24 Indiana	24 Tennessee
25 Tennessee	25 Nebraska	25 South Dakota	25 Indiana
26 Alabama	26 North Dakota	26 West Virginia	26 Florida
27 Missouri	27 Alaska	27 Nevada	27 Nebraska
28 South Dakota	28 South Dakota	28 New York	28 South Dakota
29 Florida	29 Maryland	29 Tennessee	29 Arizona
30 Nevada	30 Missouri	30 Missouri	30 Oregon
31 Arizona	31 Oregon	31 Arizona	31 Illinois
32 Virginia	32 Arizona	32 Virginia	32 Maryland
33 Iowa	33 Washington		33 Nevada
34 Washington	34 Florida		
	35 Nevada		
	36 Idaho		

Sources: IHS for wells drilled and EIA for production.

# TOP PRODUCING CONGRESSIONAL DISTRICTS - CRUDE OIL

Rank	State	District	% of US Prod
1	Alaska	At Large	15.9025
2	California	22*	10.0553
3	Texas	11	6.3519
4	New Mexico	2	3.1541
5	Texas	19	3.0758
6	Louisiana	3	1.8157
7	Wyoming	At Large	1.3613
8	Texas	23	1.1041
9	Utah	2	0.6494
10	Oklahoma	4	0.6153
11	Oklahoma	3	0.6117
12	Montana	At Large	0.4385
13	Texas	1	0.4266
14	Kansas	1	0.3401
15	Texas	15	0.3354
16	Colorado	3	0.3305
17	Texas	13	0.2334
18	North Dakota	At Large	0.2160
19	Louisiana	4	0.2143
20	Texas	14	0.2115
21	Louisiana	7	0.1704
22	Texas	2*	0.1270
23	Texas	25	0.1241
24	Texas	22	0.0998
25	Colorado	4	0.0992
26	Texas	18*	0.0914
27	Texas	28*	0.0842
28	Texas	2	0.0640
29	Texas	27	0.0589
30	Texas	17	0.0565
31	New Mexico	3	0.0527
32	Texas	8	0.0522
33	Texas	6	0.0505
34	Alabama	1	0.0487
35	Michigan	1	0.0384
36	Texas	12	0.0269
37	Louisiana	5	0.0262
38	Texas	5	0.0239
39	Oklahoma	2	0.0223
40	Texas	17*	0.0054
41	Mississippi	3	0.0048
42	Texas	26	0.0026
43	Texas	3*	0.0013
44	Mississippi	3*	0.0012
45	Texas	11*	0.0008

Source: IPAA and IHS.

\*Districts have been aggregated for ranking purposes and rounded in certain cases.

# TOP PRODUCING CONGRESSIONAL DISTRICTS - NATURAL GAS

Rank	State	District	% of US Prod
1	Wyoming	At Large	11.1376
2	Colorado	3	5.4096
3	New Mexico	3	5.3273
4	Oklahoma	3	4.9692
5	Texas	1	4.5314
6	Texas	15	3.1379
7	Texas	17	3.0698
8	Texas	28*	3.0780
9	Texas	12*	2.9563
10	Texas	13	2.4397
11	Oklahoma	2	1.9907
12	Louisiana	4	1.8714
13	Texas	23	1.8700
14	Texas	6	1.7881
15	Utah	2	1.6517
16	Louisiana	3	1.6257
17	New Mexico	2	1.6073
18	Texas	11	1.3693
19	Kansas	1	1.2803
20	Texas	25	1.2777
21	Colorado	4	1.1012
22	Alaska	At Large	0.9489
23	Texas	26	0.9457
24	Louisiana	7	0.9291
25	Texas	27	0.8684
26	Mississippi	3	0.8632
27	Louisiana	5	0.7919
28	Alabama	1	0.7096
29	Oklahoma	4	0.6805
30	Texas	14	0.6213
31	Michigan	1	0.5576
32	Texas	17*	0.5007
33	Virginia	9	0.4706
34	Texas	11*	0.4650
35	Alabama	6*	0.4498
36	Arkansas	3	0.4040
37	Texas	2	0.3511
38	Texas	8	0.3284
39	Arkansas	2	0.3045
40	Texas	2*	0.2719
41	Arkansas	4	0.2478
42	Texas	22	0.1566
43	West Virginia	3	0.1475
44	Mississippi	3*	0.1340
45	Texas	18*	0.1169
46	Texas	5	0.1160
47	Montana	At Large	0.1104
48	Texas	5	0.0846
49	North Dakota	At Large	0.0318
50	California	22*	0.0298

Source: IPAA and IHS.

\*Districts have been aggregated for ranking purposes and rounded in certain cases.



Be a part of IPAA's premiere grassroots initiative, the

## **RIG Program**

### **What is the IPAA RIG Program?**

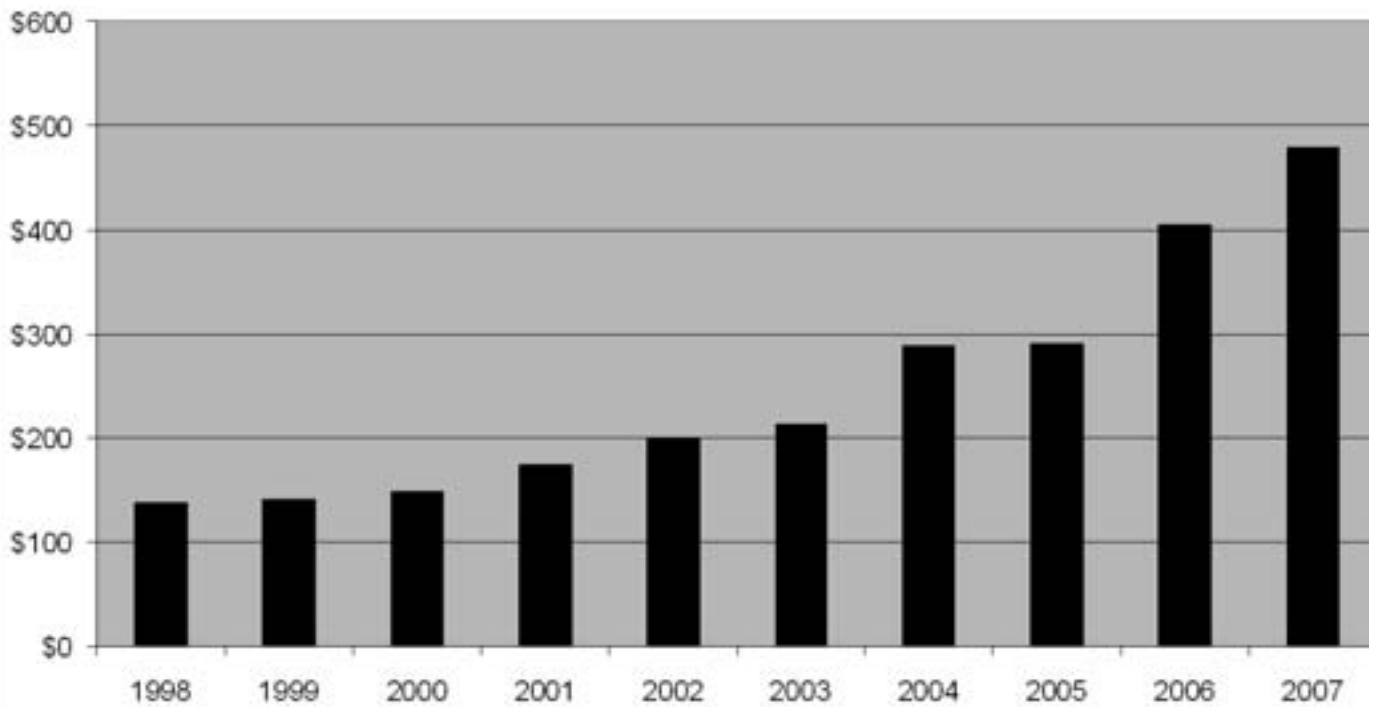
- A volunteer-based campaign
- A tool for educating elected officials
- *The most effective way for you to have a positive impact on your industry!*

Intended to maximize the independent producer's voice and concerns regarding national energy policy, the RIG Program will establish sustained, one-to-one relationships between IPAA members and their elected officials.

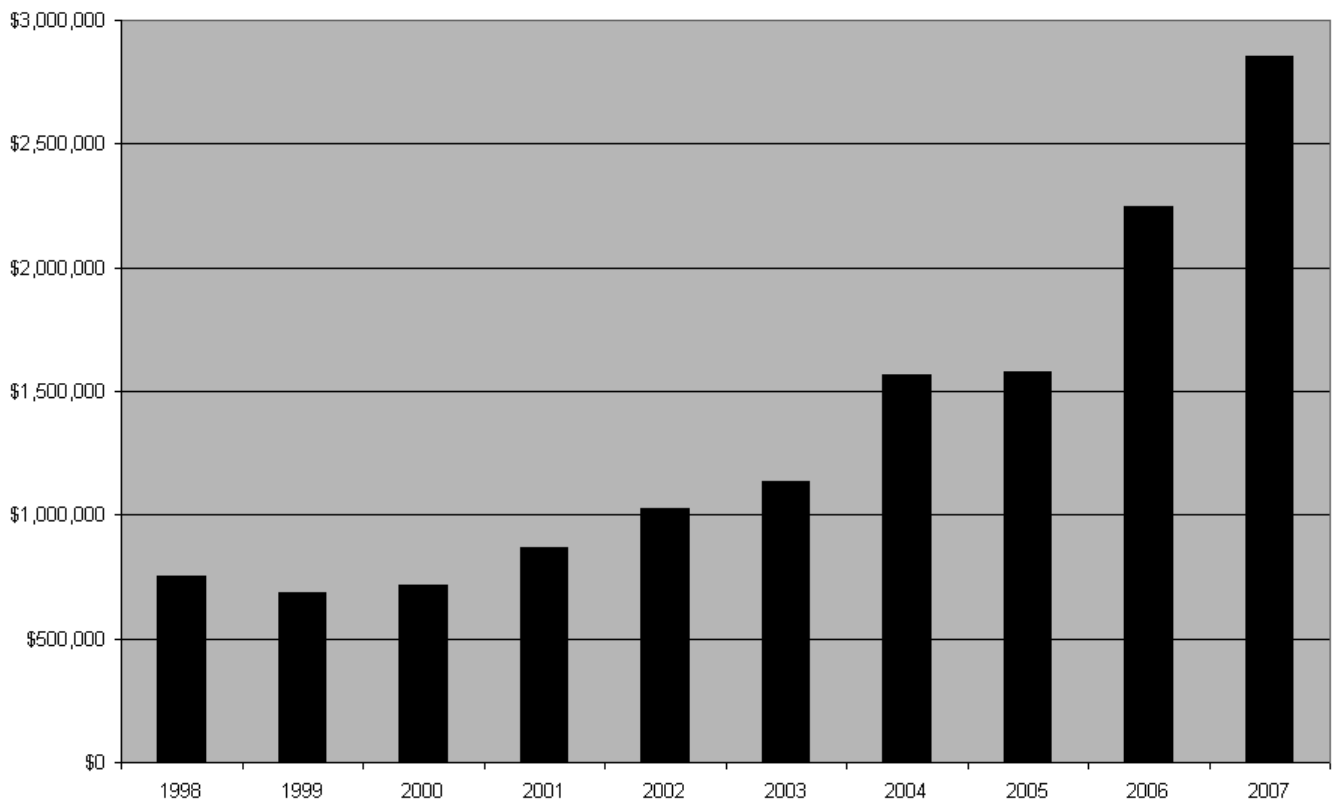
Small tasks can have a large effect! Help make a difference in shaping our national energy policy, join the RIG Program today and find out what you can do to get involved.

To learn more, or to register to participate, visit [www.ipaa.org/rig/](http://www.ipaa.org/rig/)  
Or send an email to [rigprogram@ipaa.org](mailto:rigprogram@ipaa.org)

Average Cost per Foot in U.S.

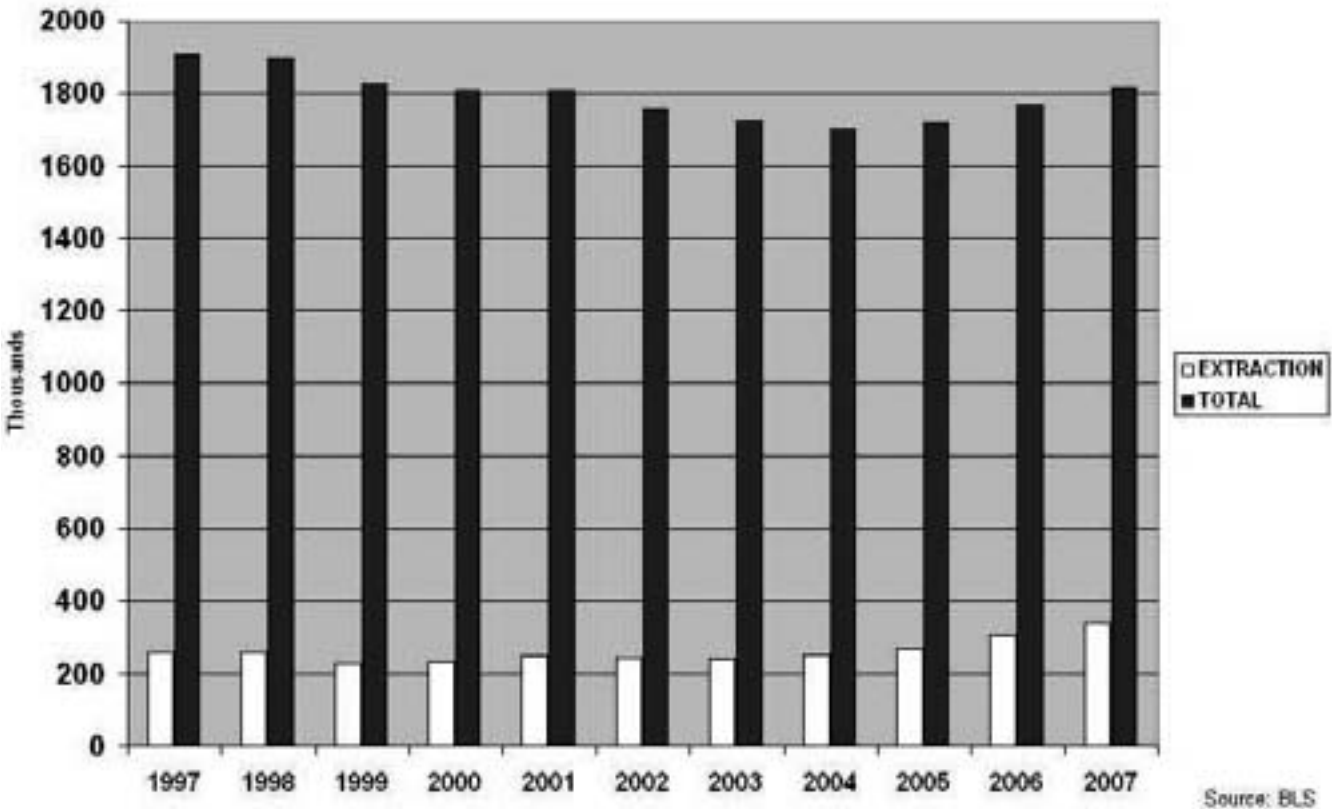


Average Cost per Well in U.S.



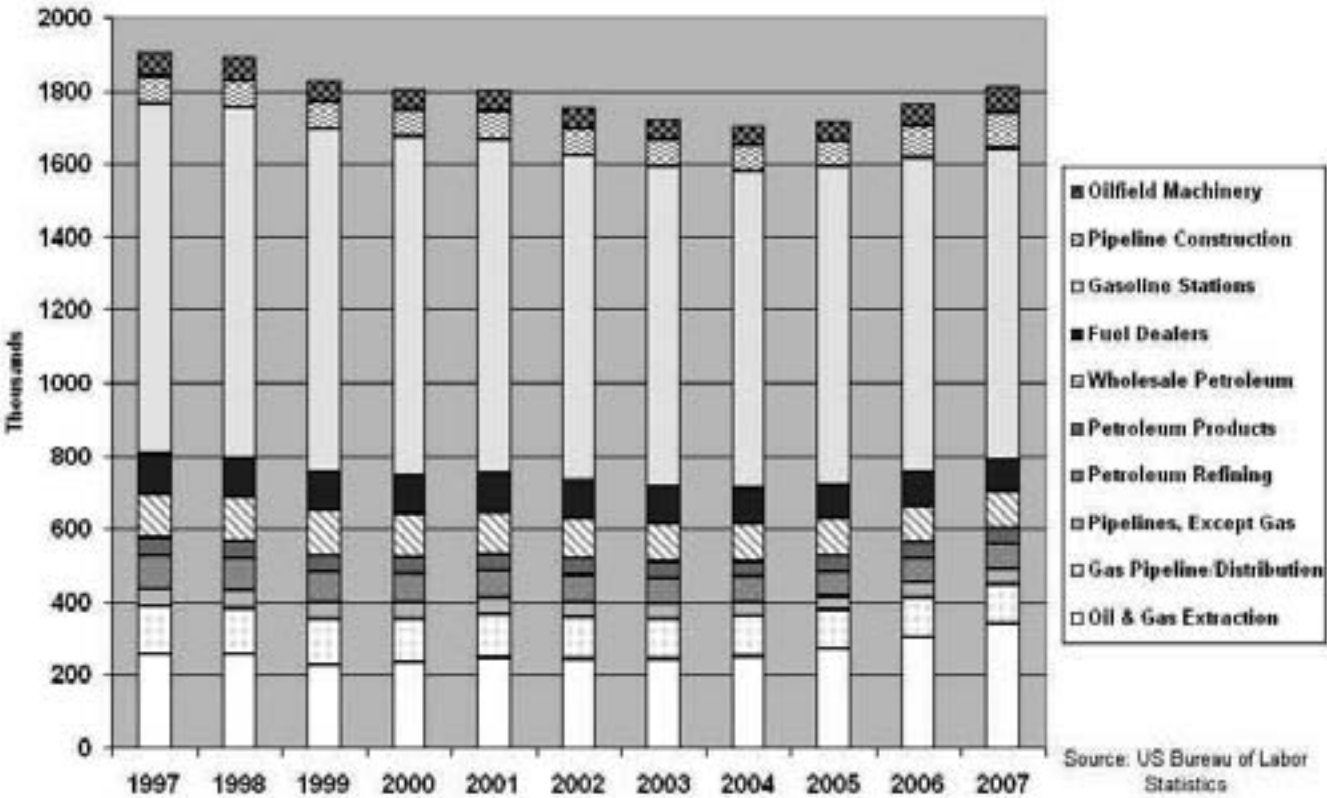
Source: IHS.

# Industry Employment

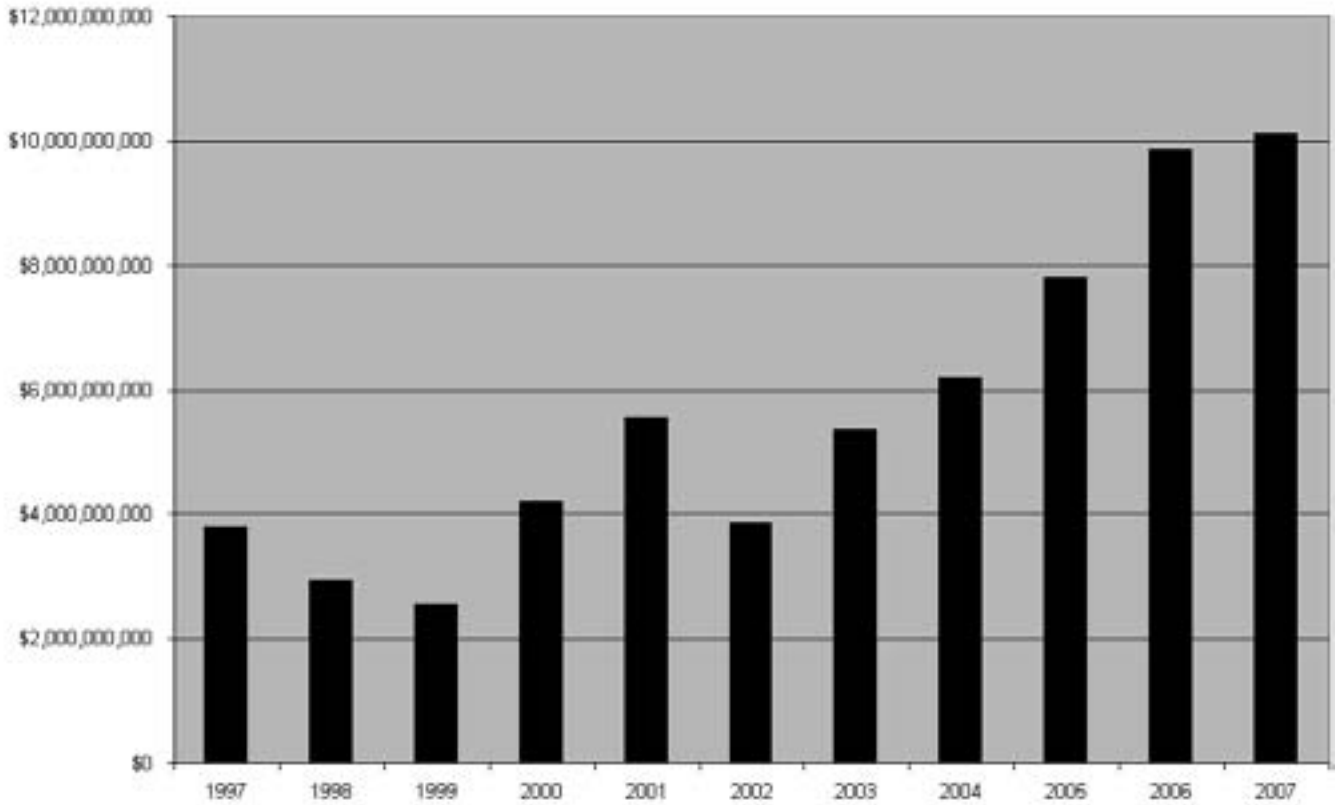


# U.S. Energy Employment

EMPLOYMENT TRENDS

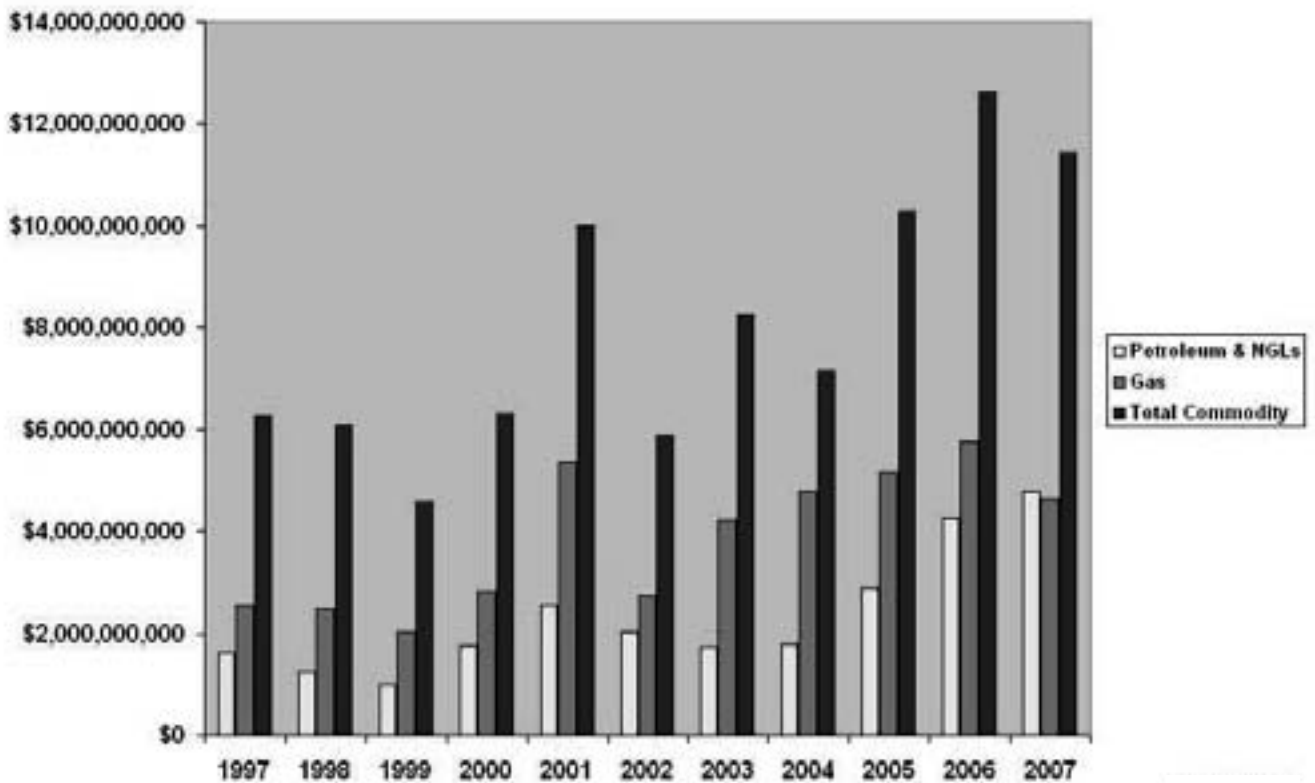


## Severance Taxes



Source: IPAA/State Sources

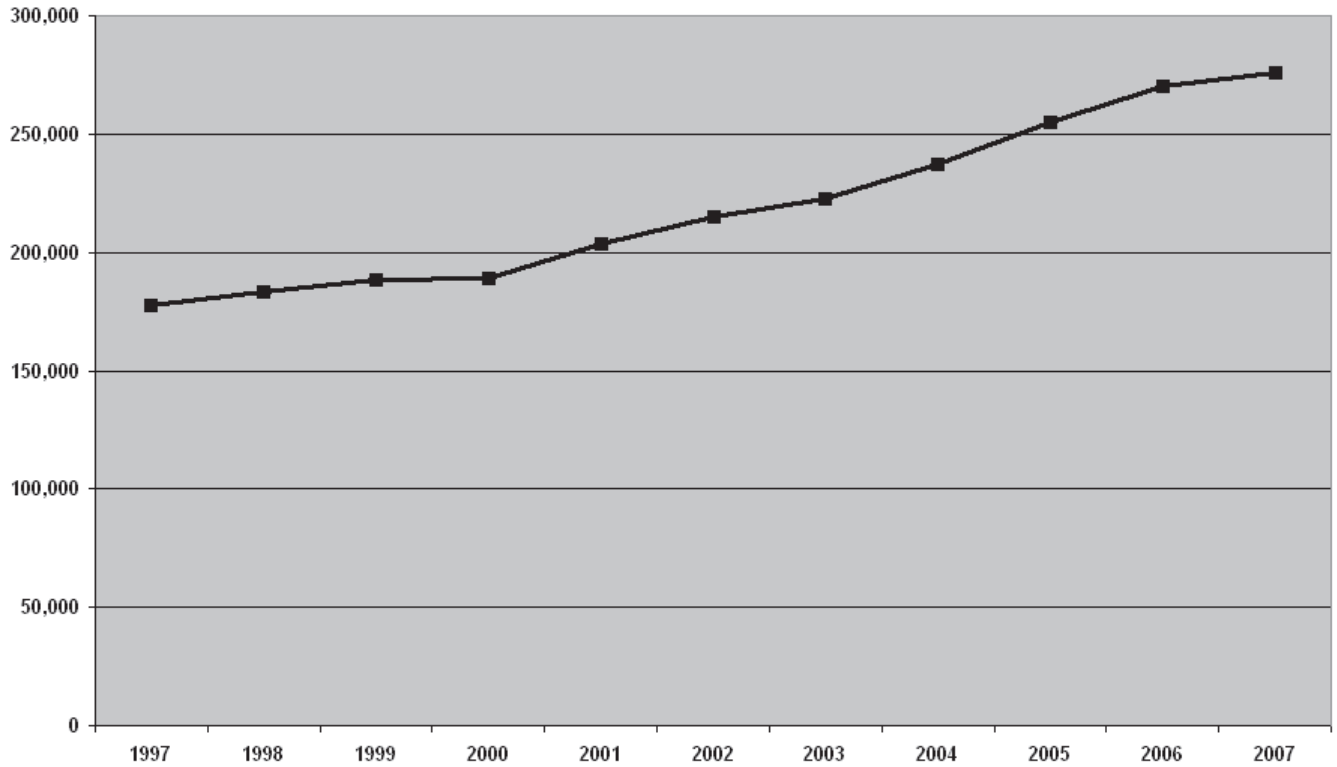
## Total Petroleum & Natural Gas Royalties, Rents & Bonuses



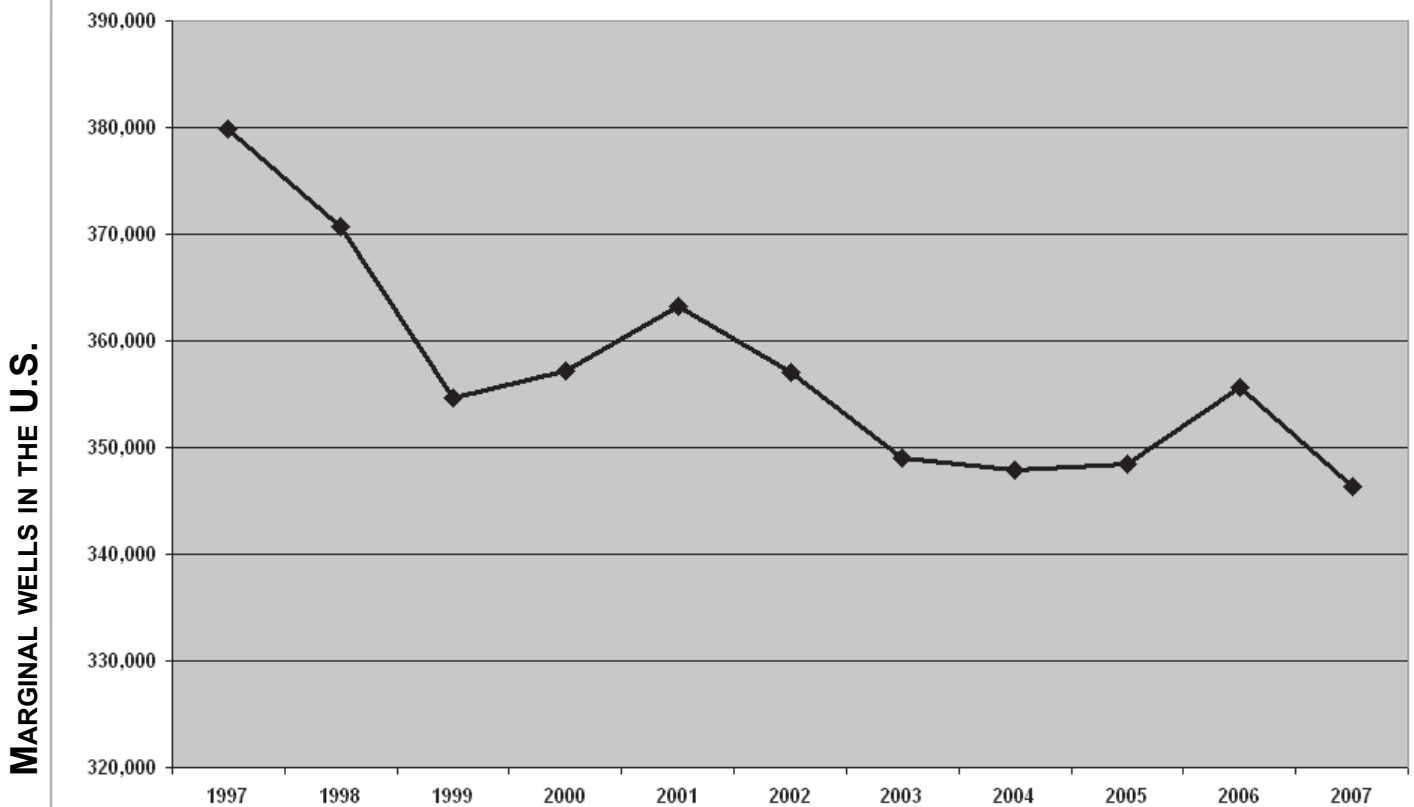
Source: MMS



Number of Marginal Gas Wells in U.S.



Number of Marginal Oil Wells in U.S.



MARGINAL WELLS IN THE U.S.

# CRUDE OIL SUMMARY

Year	Production			Imports	Supply		Exports	Demand		Crude Reserves		Price
	Crude Oil	NGL	Total		Total	Other		Total	Domestic	Total	Proved Reserves	
	(thous. b/d)						(mill. bbls.)					
1961	7,183	991	8,174	1,917	179	10,270	174	9,976	10,150	31,759	2,658	2.89
1962	7,332	1,021	8,353	2,082	175	10,610	168	10,400	10,568	31,389	2,181	2.90
1963	7,542	1,098	8,640	2,123	202	10,965	208	10,743	10,951	30,970	2,174	2.89
1964	7,614	1,155	8,769	2,258	217	11,244	202	11,023	11,225	30,991	2,665	2.88
1965	7,804	1,210	9,014	2,468	220	11,702	187	11,513	11,700	31,352	3,048	2.88
1966	8,295	1,284	9,579	2,573	246	12,398	198	12,085	12,283	31,452	2,964	2.88
1967	8,810	1,409	10,219	2,537	293	13,049	307	12,560	12,867	31,377	2,962	2.92
1968	9,096	1,504	10,600	2,840	347	13,787	231	13,393	13,624	30,707	2,455	2.94
1969	9,238	1,590	10,828	3,166	339	14,333	233	14,137	14,370	29,632	2,120	3.09
1970	9,637	1,660	11,297	3,419	355	15,071	259	14,697	14,956	39,001	2,689	3.18
1971	9,463	1,694	11,157	3,925	438	15,520	224	15,213	15,437	38,063	2,318	3.39
1972	9,441	1,744	11,185	4,741	431	16,357	222	16,367	16,589	36,339	1,558	3.39
1973	9,208	1,738	10,946	6,256	472	17,674	231	17,308	17,539	35,300	2,146	3.89
1974	8,774	1,688	10,462	6,112	478	17,052	221	16,652	16,873	34,250	1,994	6.87
1975	8,375	1,632	10,007	6,056	631	16,694	209	16,322	16,531	32,682	1,318	7.67
1976	8,132	1,604	9,736	7,313	577	17,626	223	17,461	17,684	30,942	1,085	8.19
1977	8,245	1,618	9,863	8,808	531	19,202	243	18,431	18,674	31,780	1,140	8.57
1978	8,707	1,567	10,274	8,364	315	18,953	362	18,847	19,209	31,355	2,583	9.00
1979	8,552	1,583	10,135	8,456	503	19,094	471	18,516	18,987	29,810	1,410	12.64
1980	8,597	1,573	10,170	6,909	616	17,695	544	17,056	17,600	29,805	2,970	21.59
1981	8,572	1,609	10,181	5,995	392	16,568	595	16,058	16,653	29,426	2,570	31.77
1982	8,649	1,550	10,199	5,113	478	15,790	815	15,296	16,111	27,858	1,382	28.52
1983	8,688	1,559	10,247	5,051	503	15,801	739	15,231	15,970	27,735	2,897	26.19
1984	8,879	1,630	10,509	5,437	587	16,533	722	15,726	16,448	28,446	3,748	25.88
1985	8,971	1,609	10,580	5,067	640	16,287	781	15,726	16,507	28,416	3,022	24.09
1986	8,680	1,551	10,231	6,223	764	17,218	785	16,281	17,066	26,889	1,446	12.51
1987	8,349	1,595	9,944	6,678	768	17,390	764	16,665	17,429	27,256	3,240	15.40
1988	8,151	1,625	9,776	7,402	840	18,018	815	17,283	18,098	26,825	2,380	12.58
1989	7,626	1,546	9,172	8,060	853	18,085	859	17,325	18,184	26,501	2,262	15.86
1990	7,335	1,559	8,894	8,017	1,025	17,936	857	16,988	17,845	26,254	2,258	20.03
1991	7,417	1,659	9,076	7,626	1,047	17,749	1,001	16,714	17,715	24,682	940	16.54
1992	7,171	1,697	8,868	7,888	1,114	17,870	949	17,033	17,953	23,745	1,509	15.99
1993	6,847	1,736	8,583	8,620	1,152	18,355	1,003	17,237	18,240	22,957	1,551	14.25
1994	6,662	1,727	8,389	8,996	1,291	18,676	942	17,718	18,660	22,457	1,768	13.19
1995	6,560	1,762	8,322	8,835	1,517	18,674	949	17,725	18,674	22,351	2,107	14.62
1996	6,465	1,830	8,295	9,478	1,516	19,290	981	18,309	19,215	22,017	1,839	18.46
1997	6,452	1,817	8,253	10,162	1,193	19,623	1,003	18,620	19,623	22,546	2,667	17.23
1998	6,252	1,759	8,011	10,708	1,143	19,862	945	18,917	19,862	21,034	479	10.87
1999	5,881	1,850	7,731	10,852	1,876	20,459	940	19,519	20,459	21,765	2,683	15.56
2000	5,822	1,911	7,733	11,459	1,549	20,741	1,040	19,701	20,741	22,045	2,160	26.72
2001	5,801	1,868	7,669	11,871	1,080	20,620	971	19,649	20,620	22,446	2,316	21.84
2002	5,746	1,880	7,626	11,530	1,589	20,745	984	19,761	20,745	22,677	2,106	22.51
2003	5,681	1,719	7,400	12,264	1,397	21,061	1,027	20,034	21,061	21,891	1,091	27.56
2004	5,419	1,809	7,228	13,145	1,406	21,779	1,048	20,731	21,779	21,371	1,299	36.77
2005	5,178	1,717	6,895	13,714	1,358	21,967	1,165	20,802	21,967	21,757	2,119	50.28
2006	5,102	1,739	6,841	13,707	1,456	22,004	1,317	20,687	22,004	20,972	867	59.69
2007	5,064	1,783	6,847	13,468	1,798	22,113	1,433	20,680	22,113	21,317	2,036	66.52

Sources: Energy Information Administration.

Note: Reserves estimated as of December 31 each year. Imports to Strategic Petroleum Reserve are excluded.

# NATURAL GAS SUMMARY

Year	Production		Extraction Imports		Supply		Exports	Consumption	Gas Reserves		Price Gas Wellhead (\$/Mcf.)
	Marketed	Dry	Loss		Other	Total			Proved Reserves	New Reserves	
				(Bcf)							
1961	13,254	12,662	592	219	686	13,578	11	12,489	267,728	17,421	.15
1962	13,877	13,253	624	402	838	14,509	16	13,267	273,766	19,750	.16
1963	14,747	14,077	670	406	899	15,399	17	13,970	276,151	18,418	.16
1964	15,547	14,824	723	443	866	16,153	20	14,814	281,251	20,447	.15
1965	16,040	15,287	753	456	934	16,703	26	15,280	286,469	21,470	.16
1966	17,207	16,468	739	480	1,116	18,089	25	16,452	289,333	20,355	.16
1967	18,171	17,386	785	564	1,052	19,084	82	17,388	292,908	21,956	.16
1968	19,322	18,494	828	652	1,236	20,476	94	18,632	287,350	13,816	.16
1969	20,698	19,831	867	727	1,329	21,938	51	20,056	275,109	8,482	.17
1970	21,921	21,015	906	821	1,388	23,294	70	21,139	290,746	37,598	.17
1971	22,493	21,610	883	935	1,427	24,052	80	21,793	278,806	10,136	.18
1972	22,532	21,624	908	1,019	1,679	24,400	78	22,101	266,085	9,791	.19
1973	22,648	21,731	917	1,033	1,456	24,297	77	22,049	249,950	6,471	.22
1974	21,601	20,713	887	959	1,624	23,373	77	21,223	237,132	8,501	.30
1975	20,109	19,236	872	953	1,687	21,949	73	19,538	228,200	10,786	.45
1976	19,952	19,098	854	964	1,640	21,767	65	19,946	216,026	7,368	.58
1977	20,025	19,163	863	1,011	1,654	21,884	56	19,521	207,413	12,978	.79
1978	19,974	19,122	852	966	1,817	21,958	53	19,627	208,033	19,425	.91
1979	20,471	19,663	808	1,253	1,620	22,592	56	20,241	200,997	12,221	1.18
1980	20,180	19,403	777	985	1,385	21,822	49	19,877	199,021	16,723	1.59
1981	19,956	19,181	775	904	1,499	21,643	59	19,404	201,730	21,446	1.98
1982	18,582	17,820	762	933	1,647	20,452	52	18,001	201,512	17,288	2.46
1983	16,884	16,094	790	918	1,523	18,590	55	16,835	200,247	14,523	2.59
1984	18,304	17,466	838	843	1,894	20,258	55	17,951	197,463	14,409	2.66
1985	17,270	16,454	816	950	2,005	19,464	55	17,281	193,369	11,891	2.51
1986	16,859	16,059	800	750	1,364	18,234	61	16,221	191,586	13,827	1.94
1987	17,433	16,621	812	993	1,484	19,152	54	17,211	187,211	11,739	1.67
1988	17,918	17,103	816	1,294	1,807	20,278	74	18,030	168,024	-2,517	1.69
1989	18,095	17,311	785	1,382	2,917	21,717	107	19,119	167,116	16,075	1.69
1990	18,594	17,810	784	1,532	2,265	21,693	86	19,174	169,346	19,463	1.71
1991	18,532	17,698	835	1,773	2,699	22,299	129	19,562	167,062	14,918	1.64
1992	18,712	17,840	872	2,138	2,805	22,999	216	20,228	165,015	15,376	1.74
1993	18,982	18,095	886	2,350	3,105	23,690	140	20,790	162,415	15,189	2.04
1994	19,710	18,821	889	2,624	2,598	24,205	162	21,247	163,837	19,744	1.85
1995	19,506	18,599	908	2,841	3,333	24,927	154	22,207	165,146	19,275	1.55
1996	19,751	18,854	958	2,937	3,725	25,669	153	22,610	166,474	21,456	2.17
1997	19,866	18,902	964	2,994	3,641	25,694	157	22,737	167,223	19,960	2.32
1998	19,961	19,024	938	3,152	2,975	25,310	159	22,246	164,041	15,538	1.96
1999	19,805	18,832	973	3,585	2,585	25,166	163	22,405	167,406	22,293	2.19
2000	20,198	19,182	1,016	3,782	3,053	26,261	244	23,333	177,427	29,240	3.68
2001	20,570	19,616	954	3,977	2,110	26,076	373	22,239	183,460	25,812	4.00
2002	19,885	18,928	957	4,015	2,734	26,193	516	23,007	186,946	22,839	2.95
2003	19,974	19,099	876	3,944	2,526	26,249	680	22,277	189,044	21,523	4.88
2004	19,517	18,591	927	4,259	2,689	26,393	854	22,389	192,513	22,637	5.46
2005	18,927	18,051	876	4,341	2,621	25,742	729	22,011	204,385	30,330	7.33
2006	19,410	18,504	906	4,186	1,919	25,333	724	21,685	211,085	25,245	6.39
2007	20,019	19,089	930	4,608	2,483	27,002	822	23,047	237,726	46,107	6.37

Sources: Energy Information Administration.

Note: Reserves estimated as of December 31 each year. Imports to Strategic Petroleum Reserve are excluded.

# DRILLING SUMMARY

Year	Seismic Crews		Rotary Rigs		Exploratory Wells		Total Well Completions				Footage
	Working	Active	New-Field Wildcats	Total Exploratory	Oil Wells	Gas Wells	Dry Wells	Service Holes	Total Wells	Total Drilled (mill. ft.)	
1961	4,557	1,760	6,909	10,992	21,101	5,664	17,106	3,091	46,962	192.1	
1962	3,915	1,637	6,794	10,797	21,249	5,848	16,682	2,400	46,179	198.6	
1963	3,966	1,500	6,570	10,664	20,288	4,751	16,347	2,267	43,653	184.4	
1964	4,102	1,502	6,623	10,747	20,620	4,855	17,488	2,273	45,236	189.9	
1965	4,247	1,387	6,175	9,466	18,761	4,724	16,025	1,913	41,423	181.5	
1966	3,672	1,273	6,158	10,313	16,447	4,167	15,770	2,152	38,536	165.5	
1967	3,337	1,134	5,260	8,878	15,329	3,659	13,246	1,584	33,818	144.7	
1968	3,268	1,169	5,205	8,879	14,331	3,456	12,812	2,315	32,914	149.3	
1969	3,156	1,194	5,956	9,701	14,368	4,083	13,736	1,866	34,053	161.0	
1970	2,340	1,028	4,829	7,436	13,043	4,031	11,099	1,369	29,542	142.0	
1971	2,655	976	4,636	7,131	11,903	3,983	10,382	1,414	27,682	130.7	
1972	3,016	1,107	5,011	7,551	11,437	5,484	11,013	1,486	29,420	142.5	
1973	2,999	1,195	5,096	7,771	10,251	6,975	10,466	970	28,662	141.9	
1974	3,662	1,471	5,946	8,969	13,644	7,168	12,205	1,398	34,415	153.8	
1975	3,416	1,660	6,234	9,459	16,979	8,169	13,736	1,920	40,804	184.9	
1976	3,140	1,656	5,856	9,317	17,697	9,438	13,805	1,674	42,614	187.3	
1977	3,063	2,001	6,162	10,140	18,700	12,119	15,036	1,453	47,308	215.7	
1978	4,148	2,255	6,731	11,030	19,065	14,405	16,591	1,610	51,671	238.4	
1979	4,400	2,176	6,423	10,735	20,689	15,166	16,035	1,472	53,362	243.7	
1980	4,962	2,910	7,332	12,870	32,120	17,132	20,234	2,076	71,562	311.4	
1981	5,877	3,970	9,151	17,430	42,520	19,742	26,972	2,366	91,600	406.5	
1982	5,676	3,105	7,386	15,882	39,252	18,810	25,827	2,212	86,101	375.4	
1983	4,944	2,229	6,057	13,845	37,396	14,505	23,837	2,047	77,785	316.7	
1984	4,655	2,428	6,528	15,138	44,472	14,962	25,549	2,251	87,234	368.8	
1985	3,494	1,969	5,630	12,208	36,458	12,917	21,431	1,736	75,542	316.8	
1986	2,016	964	3,484	7,156	18,598	8,055	12,362	834	39,849	177.6	
1987	1,561	936	3,515	6,903	16,441	8,114	11,698	890	37,143	163.8	
1988	1,512	936	3,271	6,350	13,508	8,446	10,284	953	33,191	155.2	
1989	1,392	869	2,644	5,251	10,412	9,483	8,468	672	29,035	135.0	
1990	1,493	1,010	2,685	5,074	12,104	10,242	8,359	802	31,417	149.5	
1991	1,251	862	2,195	4,399	11,733	9,020	7,664	1,070	29,487	141.4	
1992	847	721	1,762	3,525	8,821	7,854	6,394	989	24,058	121.3	
1993	952	755	1,683	3,603	9,144	10,285	6,594	716	25,724	138.5	
1994	1,087	775	1,613	3,787	7,704	10,044	5,568	669	23,985	130.6	
1995	1,253	723	1,605	3,402	8,736	8,923	5,425	885	23,969	124.5	
1996	1,307	779	1,676	3,342	9,937	10,118	5,698	791	26,544	138.7	
1997	1,336	943	1,757	3,155	12,028	11,838	6,354	1,017	31,237	165.4	
1998	1,566	827	1,478	2,445	8,389	12,233	5,202	838	26,662	143.6	
1999	1,125	625	1,244	1,842	5,419	12,663	3,930	478	22,490	110.0	
2000	727	918	1,505	2,231	8,860	17,283	4,721	930	31,794	148.9	
2001	717	1,156	1,765	3,018	9,581	21,601	4,667	786	36,635	184.0	
2002	674	830	1,452	2,233	7,222	16,801	3,771	747	28,541	145.0	
2003	481	1,032	1,711	2,484	8,710	20,715	4,011	815	34,251	178.5	
2004	563	1,192	1,951	2,891	9,303	23,377	3,979	1,447	36,777	202.6	
2005	655	1,383	1,936	3,729	10,882	26,809	4,005	1,596	41,696	226.6	
2006	728	1,649	2,275	4,368	13,150	30,349	4,674	1,946	48,173	266.9	
2007	848	1,769	2,562	5,206	12,959	30,886	4,371	2,062	48,216	285.1	

Sources: EIA & IHS, World Oil, Baker-Hughes & American Petroleum Institute (wells drilled data pre-2005).

Notes: Total well completions include exploratory and development wells. API historical data may not match IHS data used for recent decade on state and summary pages.

# UNITED STATES



## Background Information

### States

Number of states	50
With oil and/or gas production	33

### First year of production

Crude oil (Pennsylvania)	1859
Natural gas (Pennsylvania)	1881

### Year and amount of peak production

Crude oil — 3,517,450 thous. bbls.	1970
Natural gas — 22,647,549 MMcf	1973

### Deepest producing well (ft.)

Crude oil (GOM)	33,435
Natural gas (Texas)	30,712

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

2007 (GOM)	33,435
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### Cumulative number of total wells drilled

as of 12/31/07 (excluding service wells)

Oil wells	1,541,584	48%
Gas wells	706,524	21%
Dry holes	993,265	31%
Total	3,241,425	100%

### Cumulative crude oil wellhead value

as of 12/31/07 (thous. \$) \$2,128,197,136

### Cumulative production & new reserves

as of 12/31/07

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	210,224	49,985	260,209	1,320,063
Production	188,821	37,999	226,820	1,071,833

## Value of Oil and Gas

### Average wellhead price

(2007)

Crude oil (\$/bbl.)	\$66.52
Natural gas (\$/Mcf)	\$ 6.37

### Wellhead value of production

(2007, in thous. \$)

Crude oil	\$122,958,894
Natural gas	\$127,523,075
Total	\$250,481,969

### Average natural gas price

(2007, \$/Mcf)

Residential consumers	\$13.06
Commercial consumers	\$11.32
Industrial consumers	\$ 7.68
Electric utilities	\$ 7.31
City Gate	\$ 8.12

### Severance taxes paid

(2007, in thous. \$) \$10,108,535

### Top 10 Producing Counties

(2007 on a BOE basis)

County	State	% US Prod
Beechey Point	AK	4.10
Mississippi Canyon	FOS	4.05
Sublette	WY	3.51
Kern	CA	2.28
San Juan	NM	2.07
Green Canyon	FOS	1.54
La Plata	CO	1.45
Harrison Bay	AK	1.31
Johnson	TX	1.14
Garfield	CO	1.11

## 2007 Industry Statistics

### Number of wells drilled

	Exploratory	Development	Total
Oil	971	11,988	12,959
Gas	2,871	28,015	30,886
Dry	1,364	3,007	4,371
Total	5,206	43,010	48,216

### Total footage drilled

(thous. ft.)

	Exploratory	Development	Total
Oil	6,714.5	55,532.1	62,246.6
Gas	16,678.6	183,187.6	199,866.1
Dry	7,925.1	15,108.0	23,033.1
Total	31,318.2	253,827.7	285,145.8

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

New-field wildcats drilled	2,562
Footage (thous. ft.)	16,128.9

Average rotary rigs active	1,769
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Permits	71,872
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### Worldwide rank

	Crude Oil	Natural Gas
Wells drilled	1st	1st
Production	3rd	2nd
Reserves (2007)*	12th	5th

Number of operators	15,253
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### Number of producing wells

(12/31/07)

Crude oil	438,626
Natural gas	394,045
Total	832,671

### Average production

Crude oil (thous. b/d)	4,521
Natural gas	51,060
Total	55,581

### Total production

Crude oil (YTD bbls, in thous.)	1,222,648
Natural gas (YTD MMcf)	18,636,963

### Natural gas marketed production

(MMcf)	20,019,321
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### Average output per producing well

Crude oil (bbls.)	2,787
Natural gas (Mcf)	41,479

### Coalbed methane (YTD MMcf)

Oil Wells	32
Gas Wells	44,613
Daily Average (MMcf) / Well	4,765

### Heavy oil (YTD bbls, in thous.)

Wells	59,364
Av. bbls per day	678.6
Av. bbls per well/d	34,061

Source: For specific methodology and source details, please see pages 6 and 127.

\* Canadian oil sands included

## 2007 Latest Available Data

### Petroleum reserves

as of 12/31/07 (mill. bbls.)

	Crude Oil	NGL	Total
New reserves	2,036	1,502	3,538
Production	1,691	831	2,522
Net annual change	345	671	1,016
Proved reserves	21,317	9,143	30,460

### Natural gas reserves

as of 12/31/07 (Bcf)

	Associated Dissolved	Non- Associated	Dry Gas
New reserve	5,324	42,367	46,107
Production	2,296	18,022	19,466
Net annual change	3,028	24,345	26,641
Proved reserves	32,668	215,121	237,726

### Cost of drilling and equipping wells

	Cost/ft. (\$)	Cost/ well (\$)	Total Cost (thous. \$)
Oil	391	1,877,964	24,336,536
Gas	424	2,745,840	84,808,014
Dry	312	1,646,232	7,195,681

### Marginal oil wells

Producing marginal wells	346,305
Crude oil production in bbls. (thous.)	360,777
Crude oil production b/d (thous.)	988

### Marginal natural gas wells

as of 12/31/07

Producing marginal wells	275,861
Natural gas production (MMcf)	2,642,563

### Mineral Lease Royalties, Bonuses & Rent

Oil	\$ 4,769,661,708
Gas	\$ 4,644,072,934
Total Royalties	\$11,428,640,050

Horizontal wells drilled	5,972
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### Average number of employees

Oil and natural gas extraction	446,512
Refining	87,546
Transportation	156,156
Wholesale	188,689
Retail	861,885
Pipeline construction	97,114
Oilfield machinery	60,045
Total petroleum industry	1,897,947

# FEDERAL OFFSHORE



Federal Offshore planning areas

## Background Information

Planning Areas	
Number of areas	25
With oil and/or gas production	3

### First year of production

Crude oil	1946
Natural gas	1946

### Year and amount of peak production

Crude oil — 591,589 thous. bbls.	2001
Natural gas — 5,248,041 MMcf	1997

### Deepest producing well (ft.)

Water depth	10,062
Natural gas	26,480

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

Water depth (2005)	10,062
Well depth (2007)	33,435

### Cumulative number of total wells drilled as of 12/31/07 (excluding service wells)

Oil wells	21,365	32%
Gas wells	26,320	40%
Dry holes	18,537	28%
Total	66,222	100%

### Cumulative crude oil wellhead value

as of 12/31/07 (thous. \$)	\$322,035,223
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### Cumulative production & new reserves

	Crude	NGL		Natural
	Oil	(mill. bbls.)	Total	Gas (Bcf)
Reserves	21,562	4,798	26,360	149,508
Production	15,599	2,874	18,473	65,763

## Value of Oil and Gas

### Average wellhead price (2007)

Crude oil (\$/bbl.)	\$67.00
Natural gas (\$/Mcf)	\$ 7.12

### Wellhead value of production (2007, in thous. \$)

Crude oil	\$32,877,704
Natural gas	\$20,354,037
Total	\$53,231,741

## Federal Revenues

(2007, in thous. \$)

Bonuses	\$ 373.9
Rents	\$ 201.0
Royalties	\$6,441.2
Total	\$7,019.3

## Top 10 Producing Counties

(2007 on a BOE basis)

County	% Production	
	State	US
Mississippi Canyon	23.95	4.05
Green Canyon	11.76	1.54
Viosca Knoll	5.41	0.71
Garden Banks	5.35	0.70
South Timbalier	3.56	0.47
West Cameron	3.38	0.44
East Breaks	3.18	0.42
Eugene Island	2.94	0.39
Ship Shoal	2.82	0.37
Santa Cruz Area	2.53	0.33



## 2007 Industry Statistics

### Number of wells drilled

	Exploratory	Development	Total
Oil	5	128	133
Gas	23	185	208
Dry	112	102	214
Total	140	415	555

### Total footage drilled

(thous. ft.)

	Exploratory	Development	Total
Oil	115.6	1,449.2	1,564.8
Gas	194.0	1,766.6	1,960.6
Dry	1,280.5	737.4	2,017.9
Total	1,590.1	3,953.2	5,543.3

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

New-field wildcats drilled	132
Footage (thous. ft.)	1,512.10

Average rotary rigs active	73
----------------------------	----

Permits	1,125
---------	-------

### Statewide rank

	Crude Oil	Natural Gas
Wells drilled	12th	10th
Production	1st	2nd
Reserves (2007)	3rd	6th

### Number of producing wells

(12/31/07)

Crude oil	3,554
Natural gas	3,487
Total	7,041

### Average production

Crude oil (thous. b/d)	1,171
NGL (est.)	176.7
Natural gas (MMcf/day)	6,280

### Total production

Crude oil (YTD bbls, in thous.)	427,571
Natural gas (YTD MMcf)	2,292,279

### Natural gas marketed production

(MMcf)	2,860,083
--------	-----------

### Average output per producing well

Crude oil (bbls.)	120,307
Natural gas (Mcf)	820,213

### Producing well depth

	Oil Wells	Gas Wells
Shelf (wd <1,000 ft)	3,099	3,325
Deep (wd 1,000-4,999 ft)	419	126
Ultra Deep (wd >5,000 ft)	36	26
Total	3,554	3,487

### Number of operators

Producing oil	73
Producing natural gas	108

Source: For specific methodology and source details, please see pages 6 and 127.

## 2007 Latest Available Data

### Petroleum reserves

as of 12/31/07 (mill. bbls.)

	Crude Oil	NGL	Total
New reserves	248	98	346
Production	439	127	566
Net annual change	-191	-29	-220
Proved reserves	3,905	624	4,529

### Natural gas reserves

as of 12/31/07 (Bcf)

	Associated Dissolved	Non- Associated	Dry Gas
New reserves	570	1,296	1,810
Production	625	2,178	2,731
Net annual change	-55	-822	-921
Proved reserves	4,780	10,033	14,439

### Cost of drilling and equipping wells

	Cost/ft. (\$)	Cost/ well (\$)	Total Cost (thous. \$)
Oil	4,262	50,155,789	6,670,720
Gas	4,329	40,810,933	8,488,674
Dry	3,866	36,453,486	7,801,046

## 2007 Lease Statistics

G&G permits	93
Platform installations	81
Platform removals	156
Platform in place	3,837

### Lease characteristics

Existing leases	
<200 meters of water	3,287
200-400 meters of water	109
401-900 meters of water	94
>900 meters of water	130

### Oil & natural gas fields

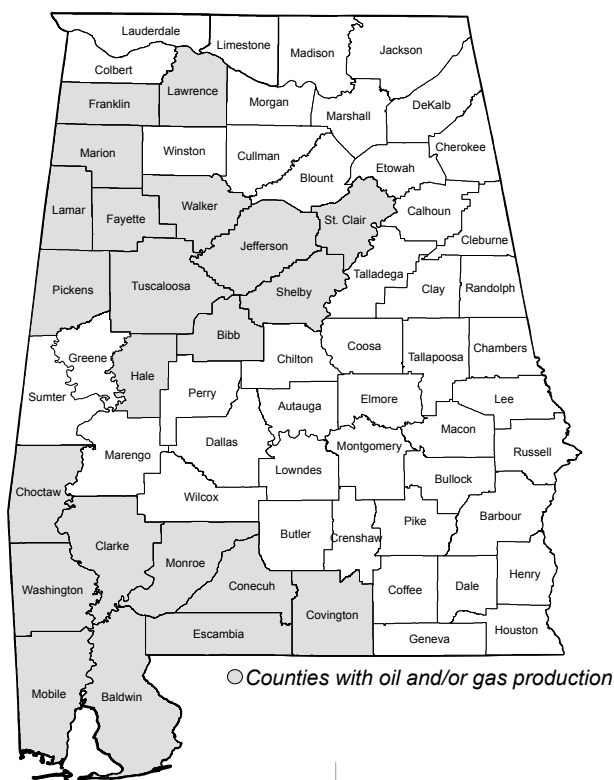
Producing	873
Non-producing	407

### Mineral Lease Royalties, Bonuses & Rent

Oil	\$3,860,021,813
Gas	\$2,592,331,833
Total Royalties	\$7,019,305,120

From 1996 to 2007, the gas production in Mississippi Canyon Block 0807 field has gone from 6.5 million MCFs to over 98 million. This field was discovered in 1989 and continues to be the top producing field in the region.

# ALABAMA



## Background Information

### Counties

Number of counties	67
With oil and/or gas production	22

### First year of production

Crude oil	1944
Natural gas	1904

### Year and amount of peak production

Crude oil — 22,153 thous. bbls.	1980
Natural gas — 378,877 MMcf	1996

### Deepest producing well (ft.)

Crude oil	19,000
Natural gas	23,330

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

1995	24,275
------	--------

### Cumulative number of total wells drilled as of 12/31/07 (excluding service wells)

Oil wells	1,387	10%
Gas wells	8,425	58%
Dry holes	4,656	32%
Total	14,468	100%

### Cumulative crude oil wellhead value as of 12/31/07 (thous. \$)

\$11,641,033

### Cumulative production & new reserves as of 12/31/07

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	512	407	919	8,869
Production	487	374	861	7,161

## Value of Oil and Gas

### Average wellhead price (2007)

Crude oil (\$/bbl.)	\$71.10
Natural gas (\$/Mcf)	\$ 7.44

### Wellhead value of production (2007, in thous. \$)

Crude oil	\$ 510,000
Natural gas	\$2,011,828
Total	\$2,521,828

### Average natural gas price (2007, \$/Mcf)

Residential consumers	\$18.13
Commercial consumers	\$15.07
Industrial consumers	\$ 8.70
Electric utilities	\$ 7.19
City Gate	\$ 8.78

### Severance taxes paid (2007 in thous. \$)

\$139,380

### Top 10 Producing Counties (2007 on a BOE basis)

County	% Production	
	State	US
Tuscaloosa	28.43	0.29
Mobile	23.57	0.24
Baldwin	23.03	0.24
Jefferson	7.47	0.08
Escambia	6.40	0.07
Conecuh	3.71	0.04
Walker	1.31	0.01
Monroe	1.26	0.01
Shelby	1.14	0.01
Lamar	1.04	0.01

## 2007 Industry Statistics

### Number of wells drilled

	Exploratory	Development	Total
Oil	5	14	19
Gas	13	473	486
Dry	31	18	49
Total	49	505	554

### Total footage drilled

(thous. ft.)

	Exploratory	Development	Total
Oil	65.5	143.5	209.0
Gas	76.6	1,192.1	1,268.8
Dry	292.0	51.8	343.8
Total	434.2	1,387.4	1,821.6

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

New-field wildcats drilled	35
Footage (thous. ft.)	297.6

Average rotary rigs active	5
----------------------------	---

Permits	500
---------	-----

### Statewide rank

	Crude Oil	Natural Gas
Wells drilled	26th	16th
Production	16th	12th
Reserves (2007)	25th	18th

Number of operators	81
---------------------	----

### Number of producing wells

(12/31/07)

Crude oil	488
Natural gas	5,728
Total	6,216

### Average production

Crude oil (thous. b/d)	14
NGL (thous. b/d)	5.4
Natural gas (MMcf/d)	725

### Total production

Crude oil (YTD bbls, in thous.)	4,951
Natural gas (YTD MMcf)	264,468

### Natural gas marketed production

(MMcf) 270,407

### Average output per producing well

Crude oil (bbls.)	10,145
Natural gas (Mcf)	46,171

Coalbed methane (YTD MMcf)	113,884
----------------------------	---------

Oil Wells	4
Gas Wells	5,281
Daily Average (MMcf) / Well	312

Heavy oil (YTD bbls, in thous.)	NA
Wells	NA
Av. bbls per day	NA
Av. bbls per well/d	NA

Source: For specific methodology and source details, please see pages 6 and 127.

## 2007 Latest Available Data

### Petroleum reserves

as of 12/31/07 (mill. bbls.)

	Crude Oil	NGL	Total
New reserves	2	1	3
Production	5	5	9
Net annual change	-3	-3	-6
Proved reserves	42	53	95

### Natural gas reserves

as of 12/31/07 (Bcf)

	Associated Dissolved	Non- Associated	Dry Gas
New reserves	6	344	357
Production	4	273	274
Net annual change	2	71	83
Proved reserves	20	4,016	3,994

### Cost of drilling and equipping wells

	Cost/ft (\$)	Cost well (\$)	Total Cost (thous. \$)
Oil	521	5,729,329	108,857
Gas	351	915,943	445,148
Dry	323	2,266,582	111,063

### Marginal oil wells

Producing marginal wells	308
Crude oil production in bbls. (thous.)	693
Crude oil production b/d (thous.)	2

### Marginal natural gas wells

as of 12/31/07

Producing marginal wells	4,563
Natural gas production (MMcf)	66,314

### Mineral Lease Royalties, Bonuses & Rent

Oil	\$ 505,447
Gas	\$ 595,667
Total Royalties	\$2,298,273

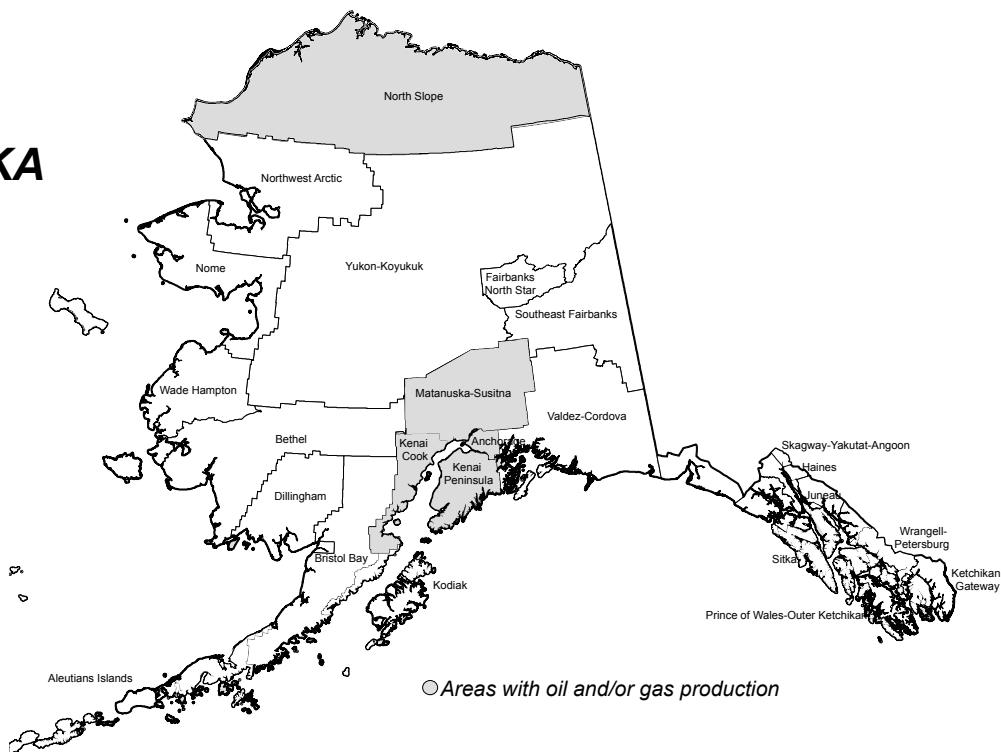
Horizontal wells drilled	2
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### Average number of employees

Oil and natural gas extraction	2,071
Refining	963
Transportation	3,335
Wholesale	3,141
Retail	18,992
Pipeline construction	1,154
Oilfield machinery	0
Total petroleum industry	29,656

In 2007, 16 wells were completed in Little Cedar Creek Field. The first well was completed in this field in 1994.

# ALASKA



## Background Information

### Areas

Number of areas	15
With oil and/or gas production	8

### First year of production

Crude oil	1905
Natural gas	1945

### Year and amount of peak production

Crude oil — 738,143 thous. bbls.	1988
Natural gas — 555,402 MMcf	1994

### Deepest producing well (ft.)

Crude oil	25,040
Natural gas	17,864

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

2007	25,040
------	--------

### Cumulative number of total wells drilled as of 12/31/07 (excluding service wells)

Oil wells	4,656	78%
Gas wells	312	5%
Dry holes	1,002	17%
Total	5,970	100%

### Cumulative crude oil wellhead value

as of 12/31/07 (thous. \$)	\$258,589,042
----------------------------	---------------

### Cumulative production & new reserves

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	20,487	510	20,997	24,890
Production	15,915	381	16,296	12,121

## Value of Oil and Gas

### Average wellhead price (2007)

Crude oil (\$/bbl.)	\$63.52
Natural gas (\$/Mcf)	\$ 5.63

### Wellhead value of production (2007, in thous. \$)

Crude oil	\$16,819,997
Natural gas	\$ 2,440,521
Total	\$19,260,518

### Average natural gas price (2007, \$/Mcf)

Residential consumers	\$8.68
Commercial consumers	\$7.57
Industrial consumers	\$4.67
Electric utilities	\$3.58
City Gate	\$6.75

### Severance taxes paid (2007, in thous. \$)

### Top Producing Counties (2007 on a BOE basis)

County	% Production	
	State	US
Beechey Point	57.69	4.11
Harrison Bay	18.40	1.31
Kenai	3.09	0.17
Tyonek	2.51	0.14
Kenai Offshore	2.41	0.13
Tyonek Offshore	1.31	0.07
Seldovia	0.14	<0.01
Barrow	0.07	<0.01

## 2007 Industry Statistics

### Number of wells drilled

	Exploratory	Development	Total
Oil	2	118	120
Gas	2	12	14
Dry	11	3	14
Total	15	133	148

### Total footage drilled

(thous. ft.)

	Exploratory	Development	Total
Oil	16.7	851.0	867.8
Gas	5.6	102.4	108.0
Dry	55.5	24.4	79.9
Total	77.8	977.7	1,055.6

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

New-field wildcats drilled	8
Footage (thous. ft.)	56.7

Average rotary rigs active	8
----------------------------	---

Permits	179
---------	-----

### Statewide rank

	Crude Oil	Natural Gas
Wells drilled	24th	27th
Production	3rd	8th
Reserves (2007)	2nd	7th

Number of operators	8
---------------------	---

### Number of producing wells

(12/31/07)

Crude oil	2,402
Natural gas	185
Total	2,587

### Average production

Crude oil (thous. b/d)	719
NGL (thous. b/d)	3.2
Natural gas (MMcf/day)	485

### Total production

Crude oil (YTD bbls, in thous.)	262,427
Natural gas (YTD MMcf)	176,850

### Natural gas marketed production

(MMcf)	433,485
--------	---------

### Average output per producing well

Crude oil (bbls.)	109,254
Natural gas (Mcf)	955,945

Coalbed methane (YTD MMcf)	NA
----------------------------	----

Oil Wells	NA
Gas Wells	NA
Daily Average (MMcf) / Well	NA

Heavy oil (YTD bbls, in thous.)	NA
Wells	NA
Av. bbls per day	NA
Av. bbls per well/d	NA

Source: For specific methodology and source details, please see pages 6 and 127.

## 2007 Latest Available Data

### Petroleum reserves

as of 12/31/07 (mill. bbls.)

	Crude Oil	NGL	Total
New reserves	545	0	545
Production	261	13	274
Net annual change	284	-13	271
Proved reserves	4,163	325	4,488

### Natural gas reserves

as of 12/31/07 (Bcf)

	Associated Dissolved	Non- Associated	Dry Gas
New reserves	2,903	-13	2,060
Production	227	164	388
Net annual change	1,866	-177	1,672
Proved reserves	20,752	1,270	11,917

### Cost of drilling and equipping wells

	Cost/ft. (\$)	Cost/ well (\$)	Total Cost (thous. \$)
Oil	4,090	29,573,300	3,548,796
Gas	2,301	17,744,382	248,421
Dry	2,854	16,278,447	227,898

### Marginal oil wells

Producing marginal wells	163
Crude oil production in bbls. (thous.)	287
Crude oil production b/d (thous.)	1

### Marginal natural gas wells

as of 12/31/07

Producing marginal wells	0
Natural gas production (MMcf)	0

### Mineral Lease Royalties, Bonuses & Rent

Oil	\$ 1,522,574
Gas	\$13,279,445
Total Royalties	\$40,833,038

Horizontal wells drilled	89
--------------------------	----

### Average number of employees

Oil and natural gas extraction	11,737
Refining	417
Transportation	0
Wholesale	1,418
Retail	1,790
Pipeline construction	368
Oilfield machinery	0
Total petroleum industry	15,730

*Discovered in the late 1960s, Prudhoe Bay Field in Alaska produced just over 277,000 barrels in 1969. By 2007, over 124 millions barrels were produced to put this field as the top producing field in the state.*

# ARIZONA



○ Counties with oil and/or gas production

## Background Information

### Counties

Number of counties	15
With oil and/or gas production	1

### First year of production

Crude oil	1958
Natural gas	1955

### Year and amount of peak production

Crude oil — 3,370 thous. bbls.	1968
Natural gas — 3,161 MMcf	1966

### Deepest producing well (ft.)

Crude oil	6,382
Natural gas	5,771

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

1981	18,013
------	--------

### Cumulative number of total wells drilled as of 12/31/07 (excluding service wells)

Oil wells	71	6%
Gas wells	52	5%
Dry holes	996	89%
Total	1,119	100%

### Cumulative crude oil wellhead value as of 12/31/07 (thous. \$)

\$70,808,080

### Cumulative production & new reserves as of 12/31/07

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	NA	0	NA	NA
Production	NA	0	NA	NA

## Value of Oil and Gas

### Average wellhead price\* (2007)

Crude oil (\$/bbl.)	\$67.26
Natural gas (\$/Mcf)	\$ 5.98

### Wellhead value of production (2007, in thous. \$)

Crude oil	\$2,892
Natural gas	\$3,917
Total	\$6,809

### Average natural gas price (2007, \$/Mcf)

Residential consumers	\$17.21
Commercial consumers	\$12.84
Industrial consumers	\$10.49
Electric utilities	\$ 6.84
City Gate	\$ 8.25

### Severance taxes paid (2007, in thous. \$)

\$6,761

### Top Producing Counties (2007 on a BOE basis)

County	% Production
State	US
Apache	100 <0.01

## 2007 Industry Statistics

### Number of wells drilled

	Exploratory	Development	Total
Oil	NA	NA	NA
Gas	NA	NA	NA
Dry	1	1	2
Total	1	1	2

### Total footage drilled

(thous. ft.)

	Exploratory	Development	Total
Oil	NA	NA	NA
Gas	NA	NA	NA
Dry	4.0	1.0	5.0
Total	4.0	1.0	5.0

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

New-field wildcats drilled	1
Footage (thous. ft.)	4.0

Average rotary rigs active	0
----------------------------	---

Permits	3
---------	---

### Statewide rank

	Crude Oil	Natural Gas
Wells drilled	31st	32nd
Production	31st	29th
Reserves (2007)	NA	NA

Number of operators	3
---------------------	---

### Number of producing wells

(12/31/07)

Crude oil	22
Natural gas	5
Total	27

### Average production

Crude oil (thous. b/d)	0
NGL (thous. b/d)	0
Natural gas (MMcf/day)	2

### Total production

Crude oil (YTD bbls, in thous.)	41
Natural gas (YTD MMcf)	590

### Natural gas marketed production

(MMcf)	655
--------	-----

### Average output per producing well

Crude oil (bbls.)	1,846
Natural gas (Mcf)	117,913

Coalbed methane (YTD MMcf)	NA
----------------------------	----

Oil Wells	NA
Gas Wells	NA
Daily Average (MMcf) / Well	NA

Heavy oil (YTD bbls, in thous.)	NA
---------------------------------	----

Wells	NA
Av. bbls per day	NA
Av. bbls per well/d	NA

Source: For specific methodology and source details, please see pages 6 and 127.

\* State Data.

## 2007 Latest Available Data

### Petroleum reserves

as of 12/31/07 (mill. bbls.)

	Crude Oil	NGL	Total
New reserves	NA	NA	NA
Production	NA	NA	NA
Net annual change	NA	NA	NA
Proved reserves	NA	NA	NA

### Natural gas reserves

as of 12/31/07 (Bcf)

	Associated Dissolved	Non- Associated	Dry Gas
New reserves	NA	NA	NA
Production	NA	NA	NA
Net annual change	NA	NA	NA
Proved reserves	NA	NA	NA

### Cost of drilling and equipping wells

	Cost/ft. (\$)	Cost/ well (\$)	Total Cost (thous. \$)
Oil	NA	NA	NA
Gas	NA	NA	NA
Dry	217	545,630	1,091

### Marginal oil wells

Producing marginal wells	21
Crude oil production in bbls. (thous.)	27
Crude oil production b/d (thous.)	0

### Marginal natural gas wells

as of 12/31/07

Producing marginal wells	2
Natural gas production (MMcf)	21

### Mineral Lease Royalties, Bonuses & Rent

Oil	\$ 431,220
Gas	\$ 50,082
Total Royalties	\$53,844,374

Horizontal wells drilled	0
--------------------------	---

### Average number of employees

Oil and natural gas extraction	310
Refining	324
Transportation	250
Wholesale	2,073
Retail	16,869
Pipeline construction	947
Oilfield machinery	0
Total petroleum industry	20,773

### Dineh-Bi-Keyeh Field in Arizona

had 23 wells completed in 1967 with over 2 million barrels of oil produced. Still the highest producing field in Arizona, less than 50,000 barrels were produced in 2007.



# ARKANSAS



○ Counties with oil and/or gas production

## Background Information

### Counties

Number of counties	75
With oil and/or gas production	25

### First year of production

Crude oil	1921
Natural gas	1889

### Year and amount of peak production

Crude oil — 77,398 thous. bbls.	1925
Natural gas — 269,886 MMcf	2007

### Deepest producing well (ft.)

Crude oil	12,500
Natural gas	19,850

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

1992	20,661
------	--------

### Cumulative number of total wells drilled as of 12/31/07 (excluding service wells)

Oil wells	14,380	39%
Gas wells	7,704	21%
Dry holes	14,661	40%
Total	36,745	100%

### Cumulative crude oil wellhead value

as of 12/31/07 (thous. \$)	\$11,472,483
----------------------------	--------------

### Cumulative production & new reserves

as of 12/31/07

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	1,827	93	1,920	11,612
Production	1,762	89	1,851	8,027

## Value of Oil and Gas

### Average wellhead price

(2007)

Crude oil (\$/bbl.)	\$ 64.25
Natural gas (\$/Mcf)	\$ 6.92

### Wellhead value of production

(2007, in thous. \$)

Crude oil	\$ 387,492
Natural gas	\$1,867,611
Total	\$2,255,103

### Average natural gas price

(2007, \$/Mcf)

Residential consumers	\$13.08
Commercial consumers	\$10.07
Industrial consumers	\$ 9.51
Electric utilities	\$ 7.04
City Gate	\$ 8.55

### Severance taxes paid

(2007, in thous. \$)

	\$14,928
--	----------

### Top 10 Producing Counties

(2007 on a BOE basis)

County	% Production	
	State	US
Logan	15.70	0.16
Sebastian	14.11	0.11
Franklin	11.49	0.09
Van Buren	10.85	0.09
Conway	8.45	0.07
White	7.20	0.06
Yell	6.22	0.05
Crawford	3.51	0.03
Scott	3.21	0.03
Columbia	3.16	0.03

## 2007 Industry Statistics

### Number of wells drilled

	Exploratory	Development	Total
Oil	3	55	58
Gas	337	385	722
Dry	20	30	50
Total	360	470	830

### Total footage drilled

(thous. ft.)

	Exploratory	Development	Total
Oil	18.7	205.0	223.7
Gas	2,303.7	2,454.7	4,758.3
Dry	113.7	170.8	284.6
Total	2,436.0	2,830.5	5,266.6

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

New-field wildcats drilled	317
Footage (thous. ft.)	2,152.0

Average rotary rigs active	45
----------------------------	----

Permits	1,186
---------	-------

### Statewide rank

	Crude Oil	Natural Gas
Wells drilled	17th	17th
Production	17th	13th
Reserves (2007)	15th	14th

Number of operators	316
---------------------	-----

### Number of producing wells

(12/31/07)

Crude oil	2,487
Natural gas	4,955
Total	7,442

### Average production

Crude oil (thous. b/d)	14
NGL (thous. b/d)	0
Natural gas (MMcf/day)	720

### Total production

Crude oil (YTD bbls, in thous.)	5,249
Natural gas (YTD MMcf)	262,629

### Natural gas marketed production

(MMcf)	269,886
--------	---------

### Average output per producing well

Crude oil (bbls.)	2,110
Natural gas (Mcf)	53,003

Coalbed methane (YTD MMcf)	2,369
----------------------------	-------

Oil Wells	0
Gas Wells	45
Daily Average (MMcf) / Well	6

Heavy oil (YTD bbls, in thous.)	NA
Wells	NA
Av. bbls per day	NA
Av. bbls per well/d	NA

Source: For specific methodology and source details, please see pages 6 and 127.

## 2007 Latest Available Data

### Petroleum reserves

as of 12/31/07 (mill. bbls.)

	Crude Oil	NGL	Total
New reserves	0	-1	-1
Production	6	0	6
Net annual change	-6	-1	-7
Proved reserves	31	3	34

### Natural gas reserves

as of 12/31/07 (Bcf)

	Associated Dissolved	Non- Associated	Dry Gas
New reserves	-3	1,307	1,305
Production	4	265	269
Net annual change	-7	1,042	1,306
Proved reserves	37	3,269	3,305

### Cost of drilling and equipping wells

	Cost/ft. (\$)	Cost/ well (\$)	Total Cost (thous. \$)
Oil	223	860,273	49,896
Gas	299	1,972,178	1,423,912
Dry	190	1,083,650	54,182

### Marginal oil wells

Producing marginal wells	2,263
Crude oil production in bbls. (thous.)	2,898
Crude oil production b/d (thous.)	8

### Marginal natural gas wells

as of 12/31/07

Producing marginal wells	2,996
Natural gas production (MMcf)	39,750

### Mineral Lease Royalties, Bonuses & Rent

Oil	\$ 219
Gas	\$ 7,115,423
Total Royalties	\$25,563,789

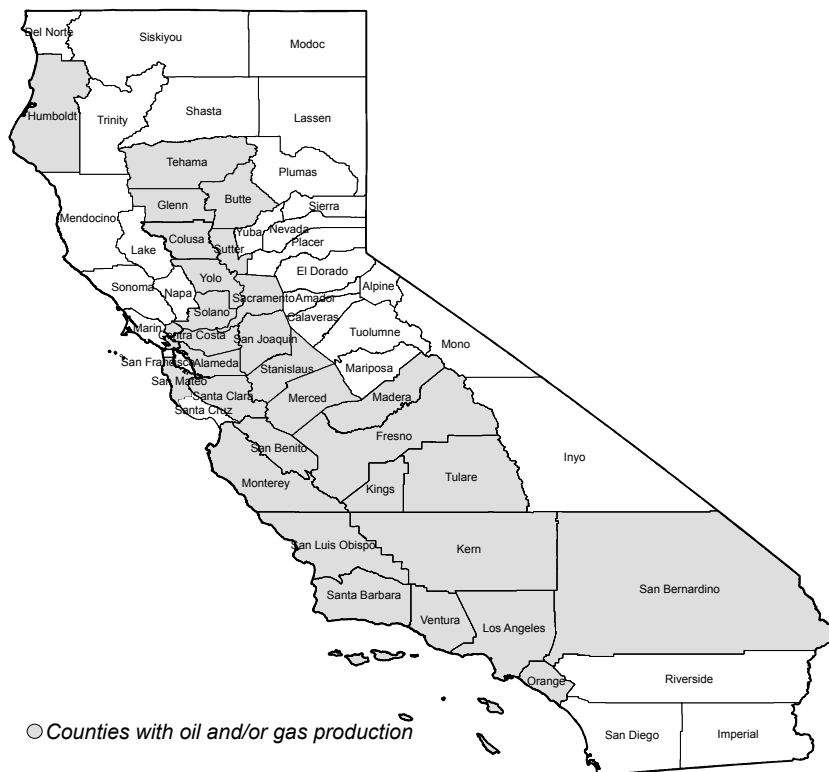
Horizontal wells drilled	443
--------------------------	-----

### Average number of employees

Oil and natural gas extraction	4,772
Refining	981
Transportation	1,759
Wholesale	2,299
Retail	12,395
Pipeline construction	614
Oilfield machinery	0
Total petroleum industry	22,820

In 2007, over 70 wells were completed in Gravel Hill Field in Arkansas. The production has increased over 1000% from 2004-2007.

# CALIFORNIA



○ Counties with oil and/or gas production

## Background Information

### Counties

Number of counties	58
With oil and/or gas production	28

### First year of production

Crude oil	1861
Natural gas	1889

### Year and amount of peak production

Crude oil —423,877 thous. bbls.	1985
Natural gas —714,893 MMcf	1968

### Deepest producing well (ft.)

Crude oil	24,426
Natural gas	18,114

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

1993	24,426
------	--------

### Cumulative number of total wells drilled as of 12/31/07 (excluding service wells)

Oil wells	147,364	79%
Gas wells	6,353	3%
Dry holes	33,623	18%
Total	187,388	100%

### Cumulative crude oil wellhead value

as of 12/31/07 (thous. \$)	\$224,932,665
----------------------------	---------------

### Cumulative production & new reserves

as of 12/31/07

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	31,182	1,558	32,740	46,420
Production	24,828	1,402	26,230	36,746

## Value of Oil and Gas

### Average wellhead price

(2007)

Crude oil (\$/bbl.)	\$ 64.73
Natural gas (\$/Mcf)	\$ 6.62

### Wellhead value of production

(2007, in thous. \$)

Crude oil	\$14,032,040
Natural gas	\$ 2,033,399
Total	\$16,065,439

### Average natural gas price

(2007, \$/Mcf)

Residential consumers	\$11.57
Commercial consumers	\$10.20
Industrial consumers	\$ 9.07
Electric utilities	\$ 6.72
City Gate	\$ 6.82

### Severance taxes paid

(2007, in thous. \$)

\$471,185

### Top 10 Producing Counties

(2007 on a BOE basis)

County	% Production	
	State	US
Kern	71.62	3.48
Los Angeles	7.09	0.26
Los Angeles Offshore	4.77	0.18
Ventura	3.05	0.12
Fresno	2.66	0.10
Monterey	1.53	0.06
Orange	1.09	0.04
Orange Offshore	1.03	0.04
Sacramento	0.98	0.04
Solano	0.87	0.03

## 2007 Industry Statistics

### Number of wells drilled

	Exploratory	Development	Total
Oil	4	2,114	2,118
Gas	2	155	157
Dry	18	74	92
Total	24	2,343	2,367

### Total footage drilled

(thous. ft.)

	Exploratory	Development	Total
Oil	19.2	4,984.6	5,003.9
Gas	13.9	1,052.4	1,066.3
Dry	98.2	418.6	516.7
Total	131.3	6,455.6	6,586.9

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

New-field wildcats drilled	11
Footage (thous. ft.)	54.6

Average rotary rigs active	35
----------------------------	----

Permits	3,683
---------	-------

### Statewide rank

	Crude Oil	Natural Gas
Wells drilled	3rd	19th
Production	4th	11th
Reserves (2007)	2nd	7th

Number of operators	393
---------------------	-----

### Number of producing wells

(12/31/07)

Crude oil	50,591
Natural gas	1,806
Total	52,397

### Average production

Crude oil (thous. b/d)	597
NGL (thous. b/d)	0.8
Natural gas (MMcf/day)	246

### Total production

Crude oil (YTD bbls, in thous.)	217,986
Natural gas (YTD MMcf)	89,845

### Natural gas marketed production

(MMcf)	307,160
--------	---------

### Average output per producing well

Crude oil (bbls.)	4,309
Natural gas (Mcf)	49,748

Coalbed methane (YTD MMcf)	NA
----------------------------	----

Oil Wells	NA
Gas Wells	NA
Daily Average (MMcf) / Well	NA

Heavy oil (YTD bbls, in thous.)	210,992
Wells	46,022
Av. bbls per day	575.6
Av. bbls per well/d	4,565

Source: For specific methodology and source details, please see pages 6 and 127.

## 2007 Latest Available Data

### Petroleum reserves

as of 12/31/07 (mill. bbls.)

	Crude Oil	NGL	Total
New reserves	153	5	158
Production	220	11	231
Net annual change	-67	-6	-73
Proved reserves	3,322	126	3,448

### Natural gas reserves

as of 12/31/07 (Bcf)

	Associated Dissolved	Non- Associated	Dry Gas
New reserves	201	7	199
Production	163	101	253
Net annual change	38	-94	-54
Proved reserves	2,193	686	2,640

### Cost of drilling and equipping wells

	Cost/ft. (\$)	Cost/ well (\$)	Total Cost (thous. \$)
Oil	550	1,299,972	2,753,340
Gas	228	1,548,347	243,090
Dry	408	2,289,843	210,666

### Marginal oil wells

Producing marginal wells	37,399
Crude oil production in bbls. (thous.)	70,860
Crude oil production b/d (thous.)	194

### Marginal natural gas wells

as of 12/31/07

Producing marginal wells	899
Natural gas production (MMcf)	11,405

### Mineral Lease Royalties, Bonuses & Rent

Oil	\$ 91,951,021
Gas	\$ 4,176,640
Total Royalties	\$ 111,531,542

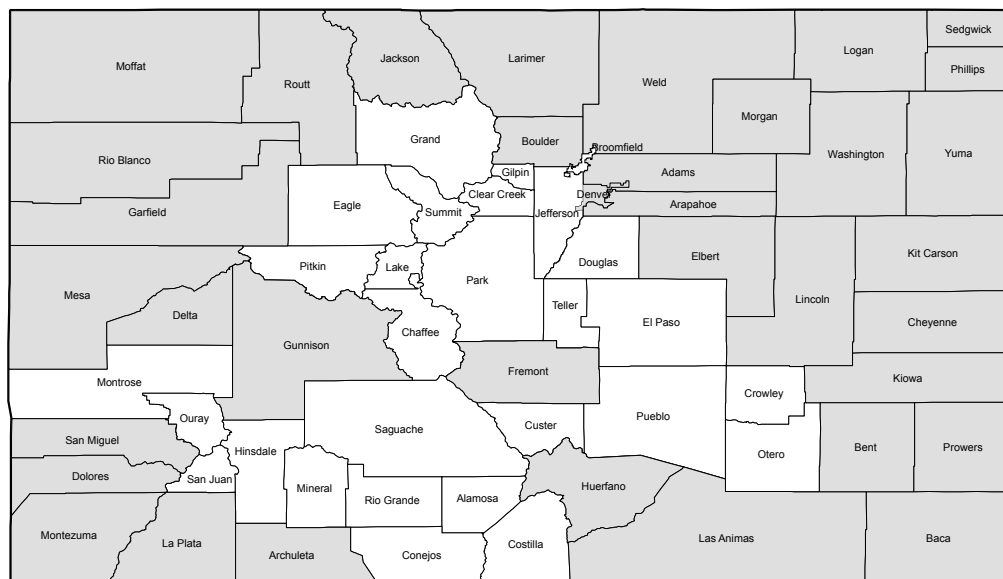
Horizontal wells drilled	196
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### Average number of employees

Oil and natural gas extraction	19,174
Refining	13,835
Transportation	4,003
Wholesale	10,943
Retail	53,475
Pipeline construction	8,337
Oilfield machinery	2,314
Total petroleum industry	112,081

*Oil production has remained consistent in Midway-Sunset Field. The field was first discovered in 1900 and continues to be the highest producing oil field in California.*

# COLORADO



○ Counties with oil and/or gas production

## Background Information

### Counties

Number of counties	63
With oil and/or gas production	37

### First year of production

Crude oil	1887
Natural gas	1893

### Year and amount of peak production

Crude oil — 58,516 thous. bbls.	1956
Natural gas — 1,242,571 MMcf	2007

### Deepest producing well (ft.)

Crude oil	12,651
Natural gas	18,535

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

1987	22,092
------	--------

### Cumulative number of total wells drilled as of 12/31/07 (excluding service wells)

Oil wells	13,569	18%
Gas wells	38,069	49%
Dry holes	25,602	33%
Total	77,240	100%

### Cumulative crude oil wellhead value

as of 12/31/07 (thous. \$)	\$24,337,812
----------------------------	--------------

### Cumulative production & new reserves

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	2,249	1,128	3,377	40,432
Production	1,969	556	2,525	17,820

## Value of Oil and Gas

### Average wellhead price (2007)

Crude oil (\$/bbl.)	\$67.04
Natural gas (\$/Mcf)	\$ 4.57

### Wellhead value of production (2007, in thous. \$)

Crude oil	\$1,557,808
Natural gas	\$5,678,549
Total	\$7,236,357

### Average natural gas price (2007, \$/Mcf)

Residential consumers	\$ 8.84
Commercial consumers	\$ 8.10
Industrial consumers	\$ 7.21
Electric utilities	\$ 4.35
City Gate	\$ 6.23

### Severance taxes paid (2007, in thous. \$)

### Top 10 Producing Counties (2007 on a BOE basis)

County	% Production	
	State	US
La Plata	31.14	1.15
Garfield	30.76	1.11
Weld	12.93	0.47
Las Animas	8.59	0.31
Rio Blanco	5.32	0.19
Yuma	3.14	0.11
Mesa	2.00	0.07
San Miguel	1.33	0.05
Moffat	1.25	0.05
Cheyenne	0.79	0.03

## 2007 Industry Statistics

### Number of wells drilled

	Exploratory	Development	Total
Oil	3	43	46
Gas	115	3,121	3,236
Dry	53	105	158
Total	171	3,269	3,440

### Total footage drilled

(thous. ft.)

	Exploratory	Development	Total
Oil	6.4	267.1	273.5
Gas	576.4	19,244.1	19,820.5
Dry	210.2	488.7	658.9
Total	793.0	19,959.9	20,752.8

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

New-field wildcats drilled	125
Footage (thous. ft.)	607.3

Average rotary rigs active	107
----------------------------	-----

Permits	5,593
---------	-------

### Statewide rank

	Crude Oil	Natural Gas
Wells drilled	18th	8th
Production	12th	7th
Reserves (2007)	12th	9th

Number of operators	349
---------------------	-----

### Number of producing wells

(12/31/07)

Crude oil	4,999
Natural gas	31,920
Total	36,919

### Average production

Crude oil (thous. b/d)	29
NGL (thous. b/d)	36.6
Natural gas (MMcf/day)	3,488

### Total production

Crude oil (YTD bbls, in thous.)	10,756
Natural gas (YTD MMcf)	1,273,254

### Natural gas marketed production

(MMcf)	1,242,571
--------	-----------

### Average output per producing well

Crude oil (bbls.)	2,152
Natural gas (Mcf)	39,889

Coalbed methane (YTD MMcf)	509,218
----------------------------	---------

Oil Wells	0
Gas Wells	4,615
Daily Average (MMcf) / Well	1,395

Heavy oil (YTD bbls, in thous.)	221
---------------------------------	-----

Wells	99
Av. bbls per day	0.6
Av. bbls per well/d	2,234

Source: For specific methodology and source details, please see pages 6 and 127.

## 2007 Latest Available Data

### Petroleum reserves

as of 12/31/07 (mill. bbls.)

	Crude Oil	NGL	Total
New reserves	49	114	163
Production	19	33	52
Net annual change	30	81	111
Proved reserves	304	559	863

### Natural gas reserves

as of 12/31/07 (Bcf)

	Associated Dissolved	Non- Associated	Dry Gas
New reserves	401	5,761	6,028
Production	104	1,260	1,326
Net annual change	297	4,501	4,702
Proved reserves	1,838	20,642	21,851

### Cost of drilling and equipping wells

	Cost/ft. (\$)	Cost/ well (\$)	Total Cost (thous. \$)
Oil	279	1,658,573	76,294
Gas	471	2,885,843	9,338,587
Dry	209	871,098	137,634

### Marginal oil wells

Producing marginal wells	4,275
Crude oil production in bbls. (thous.)	3,611
Crude oil production b/d (thous.)	10

### Marginal natural gas wells

as of 12/31/07

Producing marginal wells	22,939
Natural gas production (MMcf)	259,934

### Mineral Lease Royalties, Bonuses & Rent

Oil	\$ 34,280,252
Gas	\$ 303,705,886
Total Royalties	\$ 424,495,314

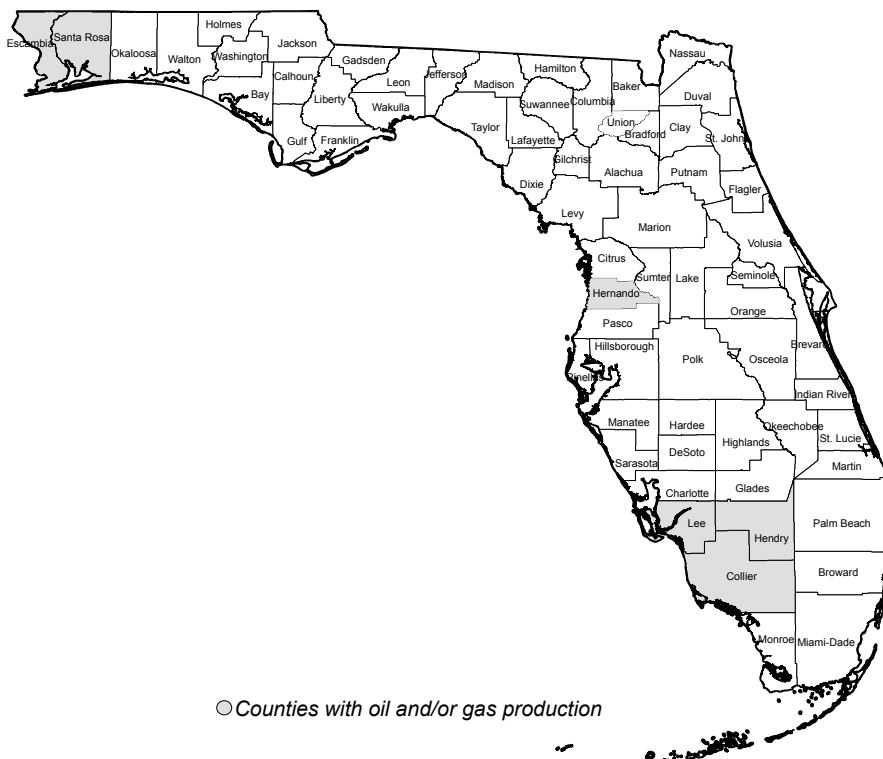
Horizontal wells drilled	20
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### Average number of employees

Oil and natural gas extraction	19,644
Refining	586
Transportation	1,908
Wholesale	2,144
Retail	12,826
Pipeline construction	2,819
Oilfield machinery	170
Total petroleum industry	40,097

*Ignacio-Blanco Field produces over 30% of the gas in Colorado. This field was first discovered in 1942.*

# FLORIDA



○ Counties with oil and/or gas production

## Background Information

### Counties

Number of counties	67
With oil and/or gas production	6

### First year of production

Crude oil	1943
Natural gas	1943

### Year and amount of peak production

Crude oil — 47,536 thous. bbls.	1978
Natural gas — 51,595 MMcf	1978

### Deepest producing well (ft.)

Crude oil	18,806
Natural gas	17,452

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

2002	18,806
------	--------

### Cumulative number of total wells drilled as of 12/31/07 (excluding service wells)

Oil wells	319	27%
Gas wells	3	0%
Dry holes	889	73%
Total	1,211	100%

### Cumulative crude oil wellhead value

as of 12/31/07 (thous. \$)	\$9,352,458
----------------------------	-------------

### Cumulative production & new reserves

as of 12/31/07

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	714	82	796	719
Production	681	86	767	600

## Value of Oil and Gas

### Average wellhead price (2007)

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

### Wellhead value of production (2007, in thous. \$)

Crude oil	NA
Natural gas	NA
Total	NA

### Average natural gas price (2007, \$/Mcf)

Residential consumers	\$20.61
Commercial consumers	\$13.07
Industrial consumers	\$10.56
Electric utilities	\$ 9.35
City Gate	\$ 7.97

### Severance taxes paid (2007, in thous. \$)

### Top Producing Counties (2007 on a BOE basis)

County	% Production	
	State	US
Santa Rosa	49.07	0.02
Collier	23.87	<0.01
Escambia	12.75	<0.01
Hendry	6.92	<0.01
Lee	4.75	<0.01
Hernando	2.64	<0.01

## 2007 Industry Statistics

### Number of wells drilled

	Exploratory	Development	Total
Oil	NA	NA	NA
Gas	NA	NA	NA
Dry	NA	NA	NA
Total	NA	NA	NA

### Total footage drilled

(thous. ft.)

	Exploratory	Development	Total
Oil	NA	NA	NA
Gas	NA	NA	NA
Dry	NA	NA	NA
Total	NA	NA	NA

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

### New-field wildcats drilled

Footage (thous. ft.)	NA
----------------------	----

### Average rotary rigs active

0

### Permits

2

### Statewide rank

	Crude Oil	Natural Gas
Wells drilled	29th	34th
Production	23rd	26th
Reserves (2007)	21st	24th

### Number of operators

5

### Number of producing wells

(12/31/07)

Crude oil	64
Natural gas	0
Total	64

### Average production

Crude oil (thous. b/d)	6
NGL (thous. b/d)	0
Natural gas (MMcf/day)	0

### Total production

Crude oil (YTD bbls, in thous.)	2,080
Natural gas (YTD MMcf)	0

### Natural gas marketed production

(MMcf)	1,778
--------	-------

### Average output per producing well

Crude oil (bbls.)	32,499
Natural gas (Mcf)	0

### Coalbed methane (YTD MMcf)

NA

Oil Wells	NA
Gas Wells	NA
Daily Average (MMcf) / Well	NA

### Heavy oil (YTD bbls, in thous.)

NA

Wells	NA
Av. bbls per day	NA
Av. bbls per well/d	NA

Source: For specific methodology and source details, please see pages 6 and 127.

## 2007 Latest Available Data

### Petroleum reserves

as of 12/31/07 (mill. bbls.)

	Crude Oil	NGL	Total
New reserves	-3	-1	-4
Production	3	0	3
Net annual change	-6	-1	-7
Proved reserves	32	2	34

### Natural gas reserves

as of 12/31/07 (Bcf)

	Associated Dissolved	Non- Associated	Dry Gas
New reserves	64	0	67
Production	4	0	4
Net annual change	60	0	63
Proved reserves	110	0	108

### Cost of drilling and equipping wells

	Cost/ft. (\$)	Cost/ well (\$)	Total Cost (thous. \$)
Oil	NA	NA	NA
Gas	NA	NA	NA
Dry	NA	NA	NA

### Marginal oil wells

Producing marginal wells	12
Crude oil production in bbls. (thous.)	37
Crude oil production b/d (thous.)	0

### Marginal natural gas wells

as of 12/31/07

Producing marginal wells	0
Natural gas production (MMcf)	0

### Mineral Lease Royalties, Bonuses & Rent

Oil	--
Gas	--
Total Royalties	\$9,974

### Horizontal wells drilled

NA

### Average number of employees

Oil and natural gas extraction	1,455
Refining	423
Transportation	2,011
Wholesale	6,704
Retail	40,191
Pipeline construction	1,036
Oilfield machinery	0
Total petroleum industry	51,820

*Jay Field in Florida produced over 25 million barrels of oil in 1973. Still the highest producing field in Florida, over 1 million barrels were produced in 2007.*





○ Counties with oil and/or gas production

## Background Information

### Counties

Number of counties	102
With oil and/or gas production	43

### First year of production

Crude oil	1889
Natural gas	1882

### Year and amount of peak production

Crude oil — 147,647 thous. bbls.	1940
Natural gas — 18,137 MMcf	1944

### Deepest producing well (ft.)

Crude oil	NA
Natural gas	NA

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

1976	14,942
------	--------

### Cumulative number of total wells drilled as of 12/31/07 (excluding service wells)

Oil wells	64,798	55%
Gas wells	1,244	1%
Dry holes	51,619	44%
Total	117,664	100%

### Cumulative crude oil wellhead value

as of 12/31/07 (thous. \$)	\$22,048,689
----------------------------	--------------

### Cumulative production & new reserves

as of 12/31/07

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	3,615	NA	3,615	NA
Production	3,554	NA	3,554	NA

## Value of Oil and Gas

### Average wellhead price (2007)

Crude oil (\$/bbl.)	\$65.66
Natural gas (\$/Mcf)	NA

### Wellhead value of production (2007, in thous. \$)

Crude oil	\$630,927
Natural gas	NA
Total	\$630,927

### Average natural gas price (2007, \$/Mcf)

Residential consumers	\$10.76
Commercial consumers	\$10.40
Industrial consumers	\$ 9.00
Electric utilities	\$ 7.26
City Gate	\$ 7.87

### Severance taxes paid (2007, in thous. \$)

	--
--	----

### Top 10 Producing Counties (2007 on a BOE basis)

County	% Production	
	State	US
Marion	12.18	0.02
White	11.02	0.02
Crawford	10.46	0.02
Lawrence	8.39	0.01
Clay	7.28	0.01
Fayette	6.61	<0.01
Wayne	5.86	<0.01
Richland	3.71	<0.01
Franklin	3.44	<0.01
Wabash	3.40	<0.01

## 2007 Industry Statistics

### Number of wells drilled

	Exploratory	Development	Total
Oil	14	188	202
Gas	NA	68	68
Dry	70	97	167
Total	84	353	437

### Total footage drilled

(thous. ft.)

	Exploratory	Development	Total
Oil	41.6	478.9	520.6
Gas	NA	60.8	60.8
Dry	181.1	235.9	417.0
Total	222.8	775.6	998.4

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

### New-field wildcats drilled

24

### Footage (thous. ft.)

59.8

### Average rotary rigs active

0

### Permits

743

### Statewide rank

	Crude Oil	Natural Gas
Wells drilled	6th	23rd
Production	15th	31st
Reserves (2007)	10th	NA

### Number of operators

826

### Number of producing wells\*

(12/31/07)

Crude oil	16,020
Natural gas	43
Total	16,063

### Average production

Crude oil (thous. b/d)	26
NGL (thous. b/d)	0
Natural gas (MMcf/day)	NA

### Total production

Crude oil (YTD bbls, in thous.)	9,609
Natural gas (YTD MMcf)	0

### Natural gas marketed production

(MMcf)

169

### Average output per producing well

Crude oil (bbls.)	NA
Natural gas (Mcf)	NA

### Coalbed methane (YTD MMcf)

NA

### Oil Wells

NA

### Gas Wells

NA

### Daily Average (MMcf) / Well

NA

### Heavy oil (YTD bbls, in thous.)

NA

### Wells

NA

### Av. bbls per day

NA

### Av. bbls per well/d

NA

Source: For specific methodology and source details, please see pages 6 and 127.

\* World Oil for Number of producing wells.

## 2007 Latest Available Data

### Petroleum reserves

as of 12/31/07 (mill. bbls.)

	Crude Oil	NGL	Total
New reserves	20	NA	20
Production	8	NA	8
Net annual change	12	NA	12
Proved reserves	101	NA	101

### Natural gas reserves

as of 12/31/07 (Bcf)

	Associated Dissolved	Non- Associated	Dry Gas
New reserves	NA	NA	NA
Production	NA	NA	NA
Net annual change	NA	NA	NA
Proved reserves	NA	NA	NA

### Cost of drilling and equipping wells

	Cost/ft. (\$)	Cost/ well (\$)	Total Cost (thous. \$)
Oil	250	643,315	129,950
Gas	645	576,923	39,231
Dry	205	510,763	85,297

### Marginal oil wells

Producing marginal wells	7,060
Crude oil production in bbls. (thous.)	5,780
Crude oil production b/d (thous.)	16

### Marginal natural gas wells

as of 12/31/07

Producing marginal wells	0
Natural gas production (MMcf)	0

### Mineral Lease Royalties, Bonuses & Rent

Oil	\$248,808
Gas	--
Total Royalties	\$248,808

### Horizontal wells drilled

0

### Average number of employees

Oil and natural gas extraction	2,649
Refining	4,499
Transportation	5,894
Wholesale	5,595
Retail	26,810
Pipeline construction	1,154
Oilfield machinery	21
Total petroleum industry	46,622

*Discovered in the early 1930s, Clay City Consolidated Field remains the top producing oil field in the state of Illinois. 33 wells were completed in 2007 with over 1 million barrels produced.*

# INDIANA

○ Counties with oil and/or gas production



## Background Information

### Counties

Number of counties	92
With oil and/or gas production	16

### First year of production

Crude oil	1889
Natural gas	1885

### Year and amount of peak production

Crude oil — 12,833 thous. bbls.	1953
Natural gas — 3,606 MMcf	2007

### Deepest producing well (ft.)

Crude oil	NA
Natural gas	NA

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

1998	8,429
------	-------

### Cumulative number of total wells drilled as of 12/31/07 (excluding service wells)

Oil wells	6,373	36%
Gas wells	1,177	6%
Dry holes	10,362	58%
Total	17,912	100%

### Cumulative crude oil wellhead value

as of 12/31/07 (thous. \$)	\$3,662,793
----------------------------	-------------

### Cumulative production & new reserves

as of 12/31/07

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	559	NA	559	NA
Production	548	NA	548	NA

## Value of Oil and Gas

### Average wellhead price (2007)

Crude oil (\$/bbl.)	\$65.47
Natural gas (\$/Mcf)	\$ 5.78

### Wellhead value of production (2007, in thous. \$)

Crude oil	\$ 113,067
Natural gas	\$ 20,843
Total	\$133,910

### Average natural gas price (2007, \$/Mcf)

Residential consumers	\$11.29
Commercial consumers	\$10.20
Industrial consumers	\$ 8.45
Electric utilities	\$ 7.48
City Gate	\$ 7.83

### Severance taxes paid (2007, in thous. \$)

### Top 10 Producing Counties (2007 on a BOE basis)

County	% Production	
	State	US
Posey	33.50	0.01
Gibson	24.84	<0.01
Pike	8.26	<0.01
Greene	6.11	<0.01
Daviess	5.78	<0.01
Spencer	5.10	<0.01
Knox	4.54	<0.01
Vanderburgh	3.89	<0.01
Vigo	3.22	<0.01
Sullivan	2.50	<0.01

## 2007 Industry Statistics

### Number of wells drilled

	Exploratory	Development	Total
Oil	2	37	39
Gas	11	15	26
Dry	20	28	48
Total	33	80	113

### Total footage drilled

(thous. ft.)

	Exploratory	Development	Total
Oil	5.6	65.0	70.6
Gas	30.7	18.3	49.0
Dry	31.8	44.8	76.6
Total	68.1	128.1	196.2

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

New-field wildcats drilled	15
Footage (thous. ft.)	26.8

Average rotary rigs active	0
----------------------------	---

Permits	339
---------	-----

### Statewide rank

	Crude Oil	Natural Gas
Wells drilled	22nd	24th
Production	24th	25th
Reserves (2007)	23rd	NA

Number of operators	229
---------------------	-----

### Number of producing wells\*

(12/31/07)

Crude oil	4,785
Natural gas	1,056
Total	5,841

### Average production

Crude oil (thous. b/d)	5
NGL (thous. b/d)	0
Natural gas (MMcf/day)	NA

### Total production

Crude oil (YTD bbls, in thous.)	1,723
Natural gas (YTD MMcf)	0

### Natural gas marketed production

(MMcf)	3,606
--------	-------

### Average output per producing well

Crude oil (bbls.)	600
Natural gas (Mcf)	NA

Coalbed methane (YTD MMcf)	NA
----------------------------	----

Oil Wells	NA
Gas Wells	NA
Daily Average (MMcf) / Well	NA

Heavy oil (YTD bbls, in thous.)	NA
---------------------------------	----

Wells	NA
Av. bbls per day	NA
Av. bbls per well/d	NA

## 2007 Latest Available Data

### Petroleum reserves

as of 12/31/07 (mill. bbls.)

	Crude Oil	NGL	Total
New reserves	7	NA	7
Production	2	NA	2
Net annual change	5	NA	5
Proved reserves	17	NA	17

### Natural gas reserves

as of 12/31/07 (Bcf)

	Associated Dissolved	Non- Associated	Dry Gas
New reserves	NA	NA	NA
Production	NA	NA	NA
Net annual change	NA	NA	NA
Proved reserves	NA	NA	NA

### Cost of drilling and equipping wells

	Cost/ft. (\$)	Cost/ well (\$)	Total Cost (thous. \$)
Oil	204	368,685	14,379
Gas	740	1,393,446	36,230
Dry	253	403,749	19,380

### Marginal oil wells

Producing marginal wells	1,790
Crude oil production in bbls. (thous.)	1,372
Crude oil production b/d (thous.)	4

### Marginal natural gas wells

as of 12/31/07

Producing marginal wells	NA
Natural gas production (MMcf)	NA

### Mineral Lease Royalties, Bonuses & Rent

Oil	--
Gas	--
Total Royalties	\$32,069

Horizontal wells drilled	9
--------------------------	---

### Average number of employees

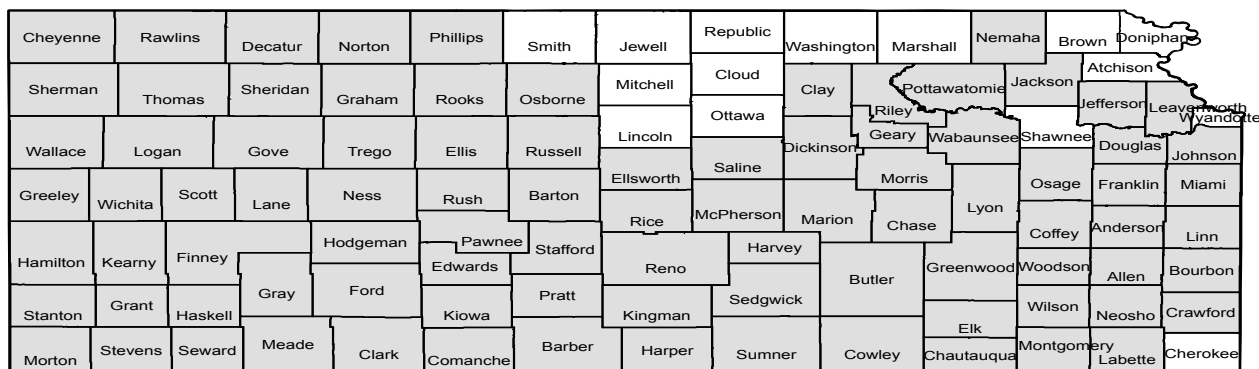
Oil and natural gas extraction	512
Refining	3,444
Transportation	3,433
Wholesale	3,459
Retail	23,398
Pipeline construction	1,150
Oilfield machinery	131
Total petroleum industry	35,527

*Griffin Consolidated Field produces over 11% of the total oil production in Indiana. The number of barrels produced is less than 50% of the production in 1980.*

Source: For specific methodology and source details, please see pages 6 and 127.

\* World Oil for Number of producing wells.

# KANSAS



○ Counties with oil and/or gas production

## Background Information

### Counties

Number of counties	105
With oil and/or gas production	90

### 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	8,812
Natural gas	28,780

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

1984	11,301
------	--------

### Cumulative number of total wells drilled as of 12/31/07 (excluding service wells)

Oil wells	128,215	47%
Gas wells	34,678	13%
Dry holes	109,541	40%
Total	272,434	100%

### Cumulative crude oil wellhead value

as of 12/31/07 (thous. \$)	\$51,203,561
----------------------------	--------------

### Cumulative production & new reserves

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	6,397	1,460	7,857	44,961
Production	6,187	1,322	7,509	40,750

## Value of Oil and Gas

### Average wellhead price

(2007)

Crude oil (\$/bbl.)	\$66.85
Natural gas (\$/Mcf)	\$ 5.69

### Wellhead value of production

(2007, in thous. \$)

Crude oil	\$2,439,357
Natural gas	\$2,081,840
Total	\$4,521,197

### Average natural gas price

(2007, \$/Mcf)

Residential consumers	\$12.97
Commercial consumers	\$12.03
Industrial consumers	\$ 7.17
Electric utilities	\$ 6.31
City Gate	\$ 8.27

### Severance taxes paid

(2007, in thous. \$)	\$131,217
----------------------	-----------

### Top 10 Producing Counties

(2007 on a BOE basis)

County	% Production	
	State	US
Stevens	11.76	0.02
Grant	7.12	0.01
Kearny	6.47	0.01
Haskell	6.22	0.01
Finney	5.42	0.01
Morton	4.63	<0.01
Seward	4.51	<0.01
Barber	3.61	<0.01
Ellis	3.30	<0.01
Stanton	2.85	<0.01

## 2007 Industry Statistics

### Number of wells drilled

	Exploratory	Development	Total
Oil	174	1,031	1,205
Gas	44	1,195	1,239
Dry	261	544	805
Total	479	2,770	3,249

### Total footage drilled

(thous. ft.)

	Exploratory	Development	Total
Oil	716.0	3,374.1	4,090.0
Gas	193.7	2,074.5	2,268.2
Dry	1,124.9	2,094.5	3,219.4
Total	2,034.6	7,543.1	9,577.6

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

New-field wildcats drilled	261
Footage (thous. ft.)	1,109.3

Average rotary rigs active	14
----------------------------	----

Permits	5,120
---------	-------

### Statewide rank

	Crude Oil	Natural Gas
Wells drilled	4th	9th
Production	10th	10th
Reserves (2007)	9th	8th

Number of operators	2,070
---------------------	-------

### Number of producing wells

(12/31/07)

Crude oil	40,782
Natural gas	20,978
Total	61,750

### Average production

Crude oil (thous. b/d)	100
NGL (thous. b/d)	0
Natural gas (MMcf/day)	1,019

### Total production

Crude oil (YTD bbls, in thous.)	36,434
Natural gas (YTD MMcf)	371,782

### Natural gas marketed production

(MMcf)	365,877
--------	---------

### Average output per producing well

Crude oil (bbls.)	893
Natural gas (Mcf)	17,722

Coalbed methane (YTD MMcf)	35,621
----------------------------	--------

Oil Wells	7
Gas Wells	3,086
Daily Average (MMcf) / Well	98

Heavy oil (YTD bbls, in thous.)	NA
Wells	NA
Av. bbls per day	NA
Av. bbls per well/d	NA

Source: For specific methodology and source details, please see pages 6 and 127.

## 2007 Latest Available Data

### Petroleum reserves

as of 12/31/07 (mill. bbls.)

	Crude Oil	NGL	Total
New reserves	-21	8	-13
Production	36	19	55
Net annual change	-57	-11	-68
Proved reserves	206	198	404

### Natural gas reserves

as of 12/31/07 (Bcf)

	Associated Dissolved	Non- Associated	Dry Gas
New reserves	10	427	412
Production	9	377	361
Net annual change	1	50	51
Proved reserves	83	4,165	3,982

### Cost of drilling and equipping wells

	Cost/ft. (\$)	Cost/ well (\$)	Total Cost (thous. \$)
Oil	131	443,363	534,252
Gas	176	322,674	399,793
Dry	72	288,419	232,177

### Marginal oil wells

Producing marginal wells	39,908
Crude oil production in bbls. (thous.)	24,772
Crude oil production b/d (thous.)	68

### Marginal natural gas wells

as of 12/31/07

Producing marginal wells	18,776
Natural gas production (MMcf)	250,779

### Mineral Lease Royalties, Bonuses & Rent

Oil	\$3,039,348
Gas	\$5,295,471
Total Royalties	\$8,332,043

Horizontal wells drilled	28
--------------------------	----

### Average number of employees

Oil and natural gas extraction	8,424
Refining	1,931
Transportation	2,577
Wholesale	2,032
Retail	10,187
Pipeline construction	1,403
Oilfield machinery	0
Total petroleum industry	26,554

Over 44% of the gas production in Kansas comes from the Kansas Hugoton Field. This field was first discovered in the early 1920s.

## Fulton



## Counties

First year of production

Year and amount of peak productionDeepest producing well (ft.)Year and depth of deepest well drilled (ft.)

Cumulative number of total wells drilled  
as of 12/31/07 (excluding service wells)

Cumulative crude oil wellhead value	
as of 12/31/07 (thous. \$)	\$17,724,891

## as of 12/31/07

Average wellhead price  
(2007)

Crude oil (\$/bbl.)	\$63.60
Natural gas (\$/Mcf)	\$ 7.35

## (2007, in thous. \$)

Crude oil	\$ 169,558
Natural gas	\$ 701,462
Total	\$ 871,920

## (2007, \$/Mcf)

Residential consumers	\$12.05
Commercial consumers	\$11.30
Industrial consumers	\$ 8.37
Electric utilities	NA
City Gate	\$ 8.22

(2007, in thous. \$)

### Top 10 Producing Counties (2007 on a BOE basis)

(2007 on a BOE basis)

County	% Production	
	State	US
Henderson	31.42	<0.01
Union	25.69	<0.01
Muhlenberg	9.92	<0.01
Hopkins	8.13	<0.01
Webster	7.10	<0.01
Daviess	6.51	<0.01
Ohio	4.89	<0.01
McLean	3.71	<0.01
Christian	1.44	<0.01
Hancock	0.43	<0.01

## 2007 Industry Statistics

### Number of wells drilled

	Exploratory	Development	Total
Oil	40	207	247
Gas	306	488	794
Dry	73	155	228
Total	419	850	1,269

### Total footage drilled

(thous. ft.)

	Exploratory	Development	Total
Oil	66.0	302.4	368.4
Gas	984.0	1,694.4	2,678.3
Dry	130.1	234.1	364.2
Total	1,180.2	2,230.8	3,411.0

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

New-field wildcats drilled 176

Footage (thous. ft.) 473.7

Average rotary rigs active 9

Permits 1,971

### Statewide rank

	Crude Oil	Natural Gas
Wells drilled	11th	12th
Production	21st	19th
Reserves (2007)	20th	19th

Number of operators 265

### Number of producing wells

(12/31/07)

Crude oil*	17,447
Natural gas	16,140
Total*	33,587

### Average production

Crude oil (thous. b/d)	3
NGL (thous. b/d)	0
Natural gas (MMcf/day)	261

### Total production

Crude oil (YTD bbls, in thous.)	2,617
Natural gas (YTD MMcf)	0

### Natural gas marketed production

(MMcf)	95,437
--------	--------

### Average output per producing well

Crude oil (bbls.)	0
Natural gas (Mcf)	5,901

Coalbed methane (YTD MMcf) NA

Oil Wells NA

Gas Wells NA

Daily Average (MMcf) / Well NA

Heavy oil (YTD bbls, in thous.) NA

Wells NA

Av. bbls per day NA

Av. bbls per well/d NA

## 2007 Latest Available Data

### Petroleum reserves

as of 12/31/07 (mill. bbls.)

	Crude Oil	NGL	Total
New reserves	1	-13	-12
Production	2	3	5
Net annual change	-1	-16	-17
Proved reserves	24	89	113

### Natural gas reserves

as of 12/31/07 (Bcf)

	Associated Dissolved	Non- Associated	Dry Gas
New reserves	-2	305	322
Production	0	84	80
Net annual change	-2	221	242
Proved reserves	34	2,554	2,469

### Cost of drilling and equipping wells

	Cost/ft. (\$)	Cost/ well (\$)	Total Cost (thous. \$)
Oil	198	295,089	72,887
Gas	132	446,425	354,461
Dry	195	311,317	70,980

### Marginal oil wells

Producing marginal wells	1,375
Crude oil production in bbls. (thous.)	773
Crude oil production b/d (thous.)	2

### Marginal natural gas wells

as of 12/31/07

Producing marginal wells	NA
Natural gas production (MMcf)	NA

### Mineral Lease Royalties, Bonuses & Rent

Oil	\$ 6,910
Gas	\$ 111,139
Total Royalties	\$ 2,385,649

Horizontal wells drilled 11

### Average number of employees

Oil and natural gas extraction	2,419
Refining	1,132
Transportation	1,745
Wholesale	3,134
Retail	18,782
Pipeline construction	1,014
Oilfield machinery	0
Total petroleum industry	28,226

### Gas production in Catron Creek Field

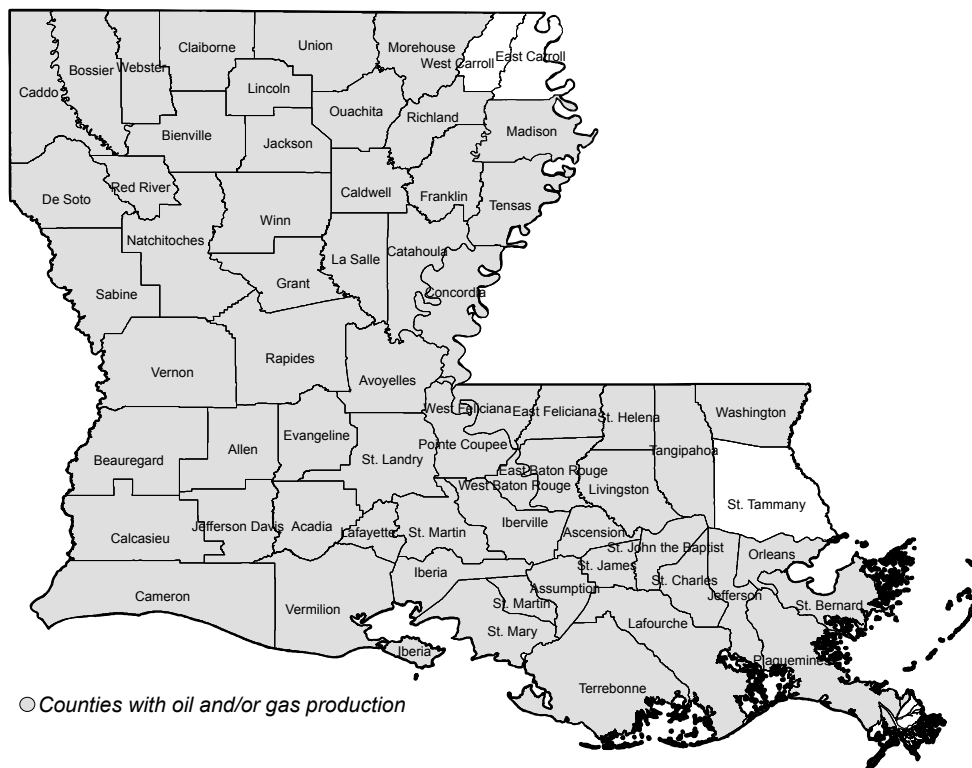
has increased 300% from 1997 through 2007. This accounts for 12% of the total gas production in the state of Kentucky.

Source: For specific methodology and source details, please see pages 6 and 127.

\* World Oil for Number of producing wells.



# LOUISIANA



○ Counties with oil and/or gas production

## Background Information

### Counties

Number of counties	64
With oil and/or gas production	61

### First year of production

Crude oil	1902
Natural gas	1905

### Year and amount of peak production

Crude oil — 935,243 thous. bbls.	1971
Natural gas — 8,242,423 MMcf	1973

### Deepest producing well (ft.)

Crude oil	22,856
Natural gas	23,903

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

1981	25,703
------	--------

### Cumulative number of total wells drilled as of 12/31/07 (excluding service wells)

Oil wells	82,471	40%
Gas wells	48,020	23%
Dry holes	75,635	37%
Total	206,126	100%

### Cumulative crude oil wellhead value

as of 12/31/07 (thous. \$)	\$265,851,830
----------------------------	---------------

### Cumulative production & new reserves

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	27,822	6,378	34,200	268,129
Production	18,708	4,605	23,313	147,610

## Value of Oil and Gas

### Average wellhead price (2007)

Crude oil (\$/bbl.)	\$71.63
Natural gas (\$/Mcf)	\$ 7.02

### Wellhead value of production (2007, in thous. \$)

Crude oil	\$ 5,456,081
Natural gas	\$ 9,572,037
Total	\$ 15,028,055

### Average natural gas price (2007, \$/Mcf)

Residential consumers	\$ 14.19
Commercial consumers	\$ 11.21
Industrial consumers	\$ 7.07
Electric utilities	\$ 7.53
City Gate	\$ 7.22

### Severance taxes paid (2007, in thous. \$)

### Top 10 Producing Counties (2007 on a BOE basis)

County	% Production State	% Production US
Plaquemines	11.20	0.62
Bossier	8.66	0.37
Terrebonne	8.13	0.35
Vermilion	6.37	0.27
De Soto	6.24	0.27
Bienville	5.84	0.25
Cameron	5.57	0.24
Jackson	5.03	0.22
Caddo	4.36	0.19
Pointe Coupee	4.26	0.18

## 2007 Industry Statistics

### Number of wells drilled

	Exploratory	Development	Total
Oil	2	239	241
Gas	9	1,026	1,035
Dry	54	300	354
Total	65	1,565	1,630

### Total footage drilled

(thous. ft.)

	Exploratory	Development	Total
Oil	7.3	1,500.1	1,507.4
Gas	85.9	10,035.6	10,121.5
Dry	447.2	2,597.0	3,044.1
Total	540.4	14,132.6	14,673.0

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

New-field wildcats drilled	50
Footage (thous. ft.)	425.5

Average rotary rigs active	177
----------------------------	-----

Permits	2,502
---------	-------

### Statewide rank

	Crude Oil	Natural Gas
Wells drilled	5th	5th
Production	5th	6th
Reserves (2007)	3rd	2nd

Number of operators	1,038
---------------------	-------

### Number of producing wells

(12/31/07)

Crude oil	17,751
Natural gas	11,245
Total	28,996

### Average production

Crude oil (thous. b/d)	144
NGL (thous. b/d)	68.3
Natural gas (MMcf/day)	3,506

### Total production

Crude oil (YTD bbls, in thous.)	52,528
Natural gas (YTD MMcf)	1,279,855

### Natural gas marketed production

(MMcf)	1,363,538
--------	-----------

### Average output per producing well

Crude oil (bbls.)	2,959
Natural gas (Mcf)	113,815

Coalbed methane (YTD MMcf)	NA
----------------------------	----

Oil Wells	NA
Gas Wells	NA
Daily Average (MMcf) / Well	NA

Heavy oil (YTD bbls, in thous.)	24,739
---------------------------------	--------

Wells	10,910
Av. bbls per day	67.8
Av. bbls per well/d	2,268

Source: For specific methodology and source details, please see pages 6 and 127.

## 2007 Latest Available Data

### Petroleum reserves

as of 12/31/07 (mill. bbls.)

	Crude Oil	NGL	Total
New reserves	84	73	157
Production	54	50	104
Net annual change	30	23	53
Proved reserves	458	303	761

### Natural gas reserves

as of 12/31/07 (Bcf)

	Associated Dissolved	Non- Associated	Dry Gas
New reserves	144	732	828
Production	64	1,230	1,257
Net annual change	80	-489	-429
Proved reserves	641	9,651	10,045

### Cost of drilling and equipping wells

	Cost/ft. (\$)	Cost/ well (\$)	Total Cost (thous. \$)
Oil	822	5,139,690	1,238,665
Gas	586	5,734,570	5,935,280
Dry	526	4,526,366	1,602,334

### Marginal oil wells

Producing marginal wells	15,528
Crude oil production in bbls. (thous.)	9,894
Crude oil production b/d (thous.)	27

### Marginal natural gas wells

as of 12/31/07

Producing marginal wells	5,146
Natural gas production (MMcf)	50,148

### Mineral Lease Royalties, Bonuses & Rent

Oil	\$ 4,525,481
Gas	\$29,650,858
Total Royalties	\$34,527,948

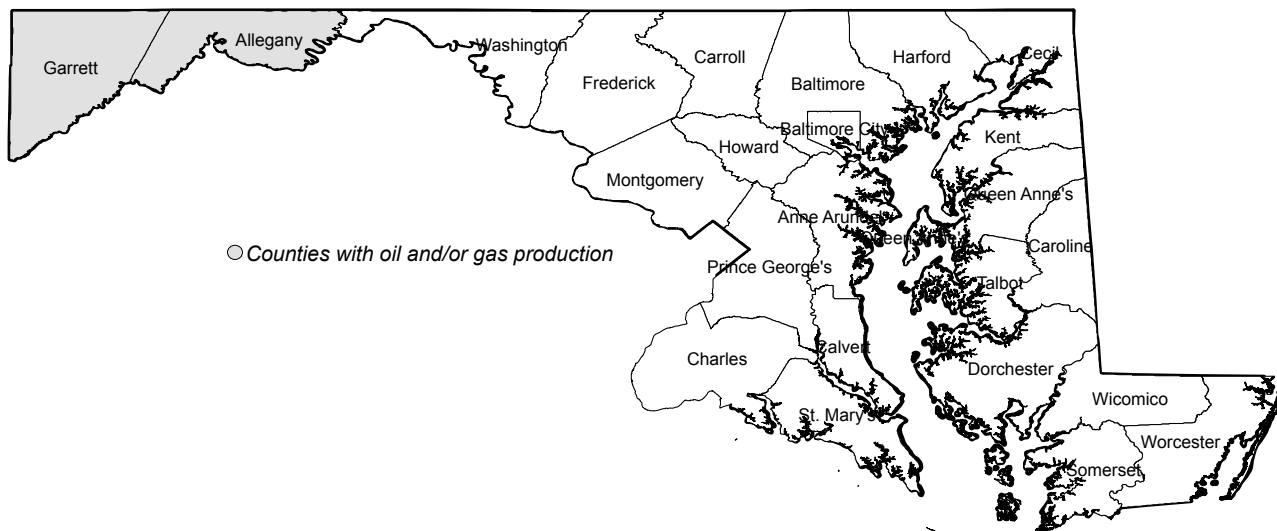
Horizontal wells drilled	22
--------------------------	----

### Average number of employees

Oil and natural gas extraction	47,260
Refining	10,552
Transportation	4,013
Wholesale	4,043
Retail	18,340
Pipeline construction	16,432
Oilfield machinery	0
Total petroleum industry	100,640

*Discovered in 1916, Elm Grove Field in Louisiana is the top producing gas field in 2007. Over 170 wells were completed in 2007 to help add to the over 115 million MCFs of gas produced.*

# MARYLAND



## Background Information

### Counties

Number of counties	23
With oil and/or gas production	2

### First year of production

Crude oil	--
Natural gas	1950

### Year and amount of peak production

Crude oil —	--
Natural gas — 4,543 MMcf	1959

### Deepest producing well (ft.)

Crude oil	NA
Natural gas	NA

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

1973	11,617
------	--------

### Cumulative number of total wells drilled as of 12/31/07 (excluding service wells)

Oil wells	NA	NA
Gas wells	88	46%
Dry holes	102	54%
Total	190	100%

### Cumulative crude oil wellhead value

as of 12/31/07 (thous. \$)	NA
----------------------------	----

### Cumulative production & new reserves as of 12/31/07

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	0	NA	NA	NA
Production	0	NA	NA	NA

## Value of Oil and Gas

### Average wellhead price (2007)

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

### Wellhead value of production (2007, in thous. \$)

Crude oil	NA
Natural gas	NA
Total	NA

### Average natural gas price (2007, \$/Mcf)

Residential consumers	\$15.17
Commercial consumers	\$12.30
Industrial consumers	\$11.59
Electric utilities	\$ 7.89
City Gate	\$ 9.24

### Severance taxes paid (2007, in thous. \$)

### Top Producing Counties (2007 on a BOE basis)

County	% Production
State	US
NA	NA

## 2007 Industry Statistics

### Number of wells drilled

	Exploratory	Development	Total
Oil	NA	NA	NA
Gas	NA	NA	NA
Dry	NA	NA	NA
Total	NA	NA	NA

### Total footage drilled

(thous. ft.)

	Exploratory	Development	Total
Oil	NA	NA	NA
Gas	NA	NA	NA
Dry	NA	NA	NA
Total	NA	NA	NA

### New-field wildcats drilled

	NA
--	----

### Footage (thous. ft.)

NA

### Average rotary rigs active

1

### Permits

1

### Statewide rank

	Crude Oil	Natural Gas
Wells drilled	NA	29th
Production	NA	32nd
Reserves (2007)	NA	NA

### Number of operators

--

### Number of producing wells

(12/31/07)

Crude oil	NA
Natural gas	NA
Total	NA

### Average production

Crude oil (thous. b/d)	NA
NGL (thous. b/d)	NA
Natural gas (MMcf/day)	NA

### Total production

Crude oil (YTD bbls, in thous.)	NA
Natural gas (YTD MMcf)	NA

### Natural gas marketed production

(MMcf)	35
--------	----

### Average output per producing well

Crude oil (bbls.)	NA
Natural gas (Mcf)	NA

### Coalbed methane (YTD MMcf)

NA

Oil Wells	NA
Gas Wells	NA
Daily Average (MMcf) / Well	NA

### Heavy oil (YTD bbls, in thous.)

NA

Wells	NA
Av. bbls per day	NA
Av. bbls per well/d	NA

Source: For specific methodology and source details, please see pages 6 and 127.

## 2007 Latest Available Data

### Petroleum reserves

as of 12/31/07 (mill. bbls.)

	Crude Oil	NGL	Total
New reserves	NA	NA	NA
Production	NA	NA	NA
Net annual change	NA	NA	NA
Proved reserves	NA	NA	NA

### Natural gas reserves

as of 12/31/07 (Bcf)

	Associated Dissolved	Non- Associated	Dry Gas
New reserves	NA	NA	NA
Production	NA	NA	NA
Net annual change	NA	NA	NA
Proved reserves	NA	NA	NA

### Cost of drilling and equipping wells

	Cost/ft. (\$)	Cost/ well (\$)	Total Cost (thous. \$)
Oil	NA	NA	NA
Gas	NA	NA	NA
Dry	NA	NA	NA

### Marginal oil wells

Producing marginal wells	NA
Crude oil production in bbls. (thous.)	NA
Crude oil production b/d (thous.)	NA

### Marginal natural gas wells

as of 12/31/07

Producing marginal wells	0
Natural gas production (MMcf)	0

### Mineral Lease Royalties, Bonuses & Rent

Oil	--
Gas	--
Total Royalties	\$12,037

### Horizontal wells drilled

0

### Average number of employees

Oil and natural gas extraction	747
Refining	868
Transportation	678
Wholesale	3,497
Retail	10,068
Pipeline construction	793
Oilfield machinery	0
Total petroleum industry	16,651

*The first exploration well was drilled in 1888 in the Cumberland Narrows. In 1944 there was first evidence of natural gas found in a well drilled on the Accident Dome in Garrett County. Later discoveries took place in four fields in the Appalachian region: Mountain Lake Park, Accident, Negro Mountain and Pennlands (Artemas). The Marcellus Shale covers the westernmost portion of the state.*

# MICHIGAN



○ Counties with oil and/or gas production

## Background Information

### Counties

Number of counties	83
With oil and/or gas production	58

### First year of production

Crude oil	1900
Natural gas	1909

### Year and amount of peak production

Crude oil — 34,862 thous. bbls.	1979
Natural gas — 311,616 MMcf	1997

### Deepest producing well (ft.)

Crude oil	12,742
Natural gas	14,716

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

1975	17,466
------	--------

### Cumulative number of total wells drilled as of 12/31/07 (excluding service wells)

Oil wells	15,288	27%
Gas wells	13,944	25%
Dry holes	26,716	48%
Total	55,948	100%

### Cumulative crude oil wellhead value

as of 12/31/07 (thous. \$)	\$15,146,776
----------------------------	--------------

### Cumulative production & new reserves as of 12/31/07

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	1,286	308	1,594	10,161
Production	1,242	238	1,480	5,744

## Value of Oil and Gas

### Average wellhead price (2007)

Crude oil (\$/bbl.)	\$66.87
Natural gas (\$/Mcf)	\$ 8.46

### Wellhead value of production (2007, in thous. \$)

Crude oil	\$ 347,791
Natural gas	\$2,241,113
Total	\$2,588,904

### Average natural gas price (2007, \$/Mcf)

Residential consumers	\$11.06
Commercial consumers	\$10.02
Industrial consumers	\$ 9.47
Electric utilities	\$ 6.63
City Gate	\$ 8.06

### Severance taxes paid (2007, in thous. \$)

### Top 10 Producing Counties (2007 on a BOE basis)

County	% Production	
	State	US
Otsego	23.74	0.15
Montmorency	22.74	0.11
Antrim	13.57	0.07
Alpena	7.40	0.04
Manistee	4.66	0.02
Oscoda	4.18	0.02
Kalkaska	3.12	<0.01
Crawford	1.97	<0.01
Charlevoix	1.85	<0.01
Missaukee	1.70	<0.01

## 2007 Industry Statistics

### Number of wells drilled

	Exploratory	Development	Total
Oil	7	34	41
Gas	5	388	393
Dry	20	28	48
Total	32	450	482

### Total footage drilled

(thous. ft.)

	Exploratory	Development	Total
Oil	34.1	131.2	165.3
Gas	25.3	653.6	678.9
Dry	70.7	55.7	126.4
Total	130.1	840.5	970.6

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

### New-field wildcats drilled

	23
--	----

Footage (thous. ft.)	84.2
----------------------	------

### Average rotary rigs active

	2
--	---

### Permits

	757
--	-----

### Statewide rank

	Crude Oil	Natural Gas
Wells drilled	14th	13th
Production	19th	14th
Reserves (2007)	18th	15th

### Number of operators

	174
--	-----

### Number of producing wells

(12/31/07)

Crude oil	3,875
Natural gas	9,792
Total	13,667

### Average production

Crude oil (thous. b/d)	15
NGL (thous. b/d)	1.8
Natural gas (MMcf/day)	416

### Total production

Crude oil (YTD bbls, in thous.)	5,394
Natural gas (YTD MMcf)	151,701

### Natural gas marketed production

(MMcf)	264,907
--------	---------

### Average output per producing well

Crude oil (bbls.)	1,392
Natural gas (Mcf)	15,492

### Coalbed methane (YTD MMcf)

	NA
Oil Wells	NA
Gas Wells	NA
Daily Average (MMcf) / Well	NA

### Heavy oil (YTD bbls, in thous.)

	NA
Wells	NA
Av. bbls per day	NA
Av. bbls per well/d	NA

Source: For specific methodology and source details, please see pages 6 and 127.

## 2007 Latest Available Data

### Petroleum reserves

as of 12/31/07 (mill. bbls.)

	Crude Oil	NGL	Total
New reserves	-3	16	13
Production	5	3	8
Net annual change	-8	13	5
Proved reserves	55	55	110

### Natural gas reserves

as of 12/31/07 (Bcf)

	Associated Dissolved	Non- Associated	Dry Gas
New reserves	4	757	749
Production	17	170	184
Net annual change	-13	587	565
Proved reserves	179	3,512	3,630

### Cost of drilling and equipping wells

	Cost/ft. (\$)	Cost/ well (\$)	Total Cost (thous. \$)
Oil	544	2,191,083	89,834
Gas	673	1,162,914	457,025
Dry	347	914,246	43,884

### Marginal oil wells

Producing marginal wells	3,232
Crude oil production in bbls. (thous.)	3,674
Crude oil production b/d (thous.)	9

### Marginal natural gas wells

as of 12/31/07

Producing marginal wells	9,220
Natural gas production (MMcf)	128,265

### Mineral Lease Royalties, Bonuses & Rent

Oil	\$ 328,217
Gas	\$1,947,724
Total Royalties	\$2,363,496

### Horizontal wells drilled

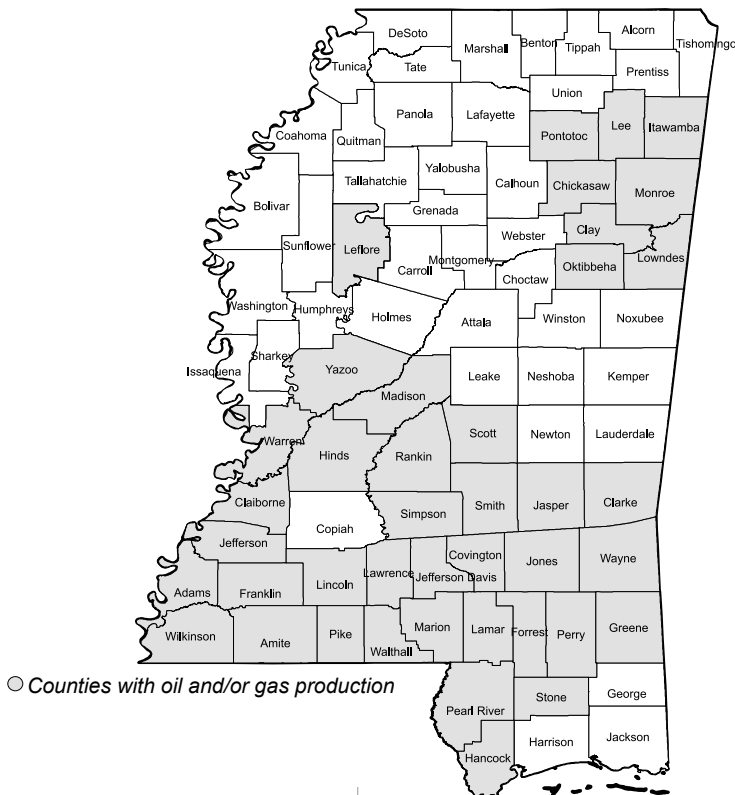
	67
--	----

### Average number of employees

Oil and natural gas extraction	2,603
Refining	1,134
Transportation	4,189
Wholesale	5,074
Retail	24,589
Pipeline construction	1,306
Oilfield machinery	0
Total petroleum industry	38,895

Antrim Field in Michigan was discovered in the late 1960s. By 2007, the field was producing almost 90% of the state's total gas.

# MISSISSIPPI



○ Counties with oil and/or gas production

## Background Information

### Counties

Number of counties	82
With oil and/or gas production	41

### First year of production

Crude oil	1889
Natural gas	1923

### Year and amount of peak production

Crude oil — 65,119 thous. bbls.	1970
Natural gas — 221,331 MMcf	1988

### Deepest producing well (ft.)

Crude oil	22,430
Natural gas	23,894

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

1986	25,500
------	--------

### Cumulative number of total wells drilled as of 12/31/07 (excluding service wells)

Oil wells	10,763	33%
Gas wells	4,146	12%
Dry holes	17,976	55%
Total	32,885	100%

### Cumulative crude oil wellhead value

as of 12/31/07 (thous. \$)	\$22,343,561
----------------------------	--------------

### Cumulative production & new reserves

as of 12/31/07

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	2,737	132	2,869	9,952
Production	2,562	150	2,712	9,063

## Value of Oil and Gas

### Average wellhead price (2007)

Crude oil (\$/bbl.)	\$68.65
Natural gas (\$/Mcf)	\$ 6.70

### Wellhead value of production (2007, in thous. \$)

Crude oil	\$ 1,400,185
Natural gas	\$ 492,182
Total	\$ 1,892,367

### Average natural gas price (2007, \$/Mcf)

Residential consumers	\$13.02
Commercial consumers	\$ 11.11
Industrial consumers	\$ 8.29
Electric utilities	\$ 7.43
City Gate	\$ 8.47

### Severance taxes paid (2007, in thous. \$)

### Top 10 Producing Counties (2007 on a BOE basis)

County	% Production	State	US
Rankin	42.18	0.56	
Jasper	7.64	0.08	
Madison	6.56	0.07	
Lincoln	5.94	0.06	
Wayne	5.48	0.06	
Jefferson Davis	5.24	0.05	
Jones	4.08	0.04	
Covington	3.51	0.04	
Lamar	3.33	0.03	
Pike	2.46	0.03	

## 2007 Industry Statistics

### Number of wells drilled

	Exploratory	Development	Total
Oil	3	88	91
Gas	8	153	161
Dry	41	39	80
Total	52	280	332

### Total footage drilled

(thous. ft.)

	Exploratory	Development	Total
Oil	25.7	744.7	770.0
Gas	62.9	1,386.1	1,449.0
Dry	334.8	352.3	687.2
Total	423.0	2,483.1	2,906.1

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

New-field wildcats drilled	40
Footage (thous. ft.)	312.9

Average rotary rigs active	14
----------------------------	----

Permits	599
---------	-----

### Statewide rank

	Crude Oil	Natural Gas
Wells drilled	19th	21st
Production	13th	21st
Reserves (2007)	11th	16th

Number of operators	205
---------------------	-----

### Number of producing wells

(12/31/07)

Crude oil	1,937
Natural gas	1,714
Total	3,651

### Average production

Crude oil (thous. b/d)	52
NGL (thous. b/d)	4
Natural gas (MMcf/day)	735

### Total production

Crude oil (YTD bbls, in thous.)	19,034
Natural gas (YTD MMcf)	268,328

### Natural gas marketed production

(MMcf)	73,460
--------	--------

### Average output per producing well

Crude oil (bbls.)	9,826
Natural gas (Mcf)	156,551

Coalbed methane (YTD MMcf)	NA
----------------------------	----

Oil Wells	NA
Gas Wells	NA
Daily Average (MMcf) / Well	NA

Heavy oil (YTD bbls, in thous.)	1,707
---------------------------------	-------

Wells	250
Av. bbls per day	4.7
Av. bbls per well/d	6,826

## 2007 Latest Available Data

### Petroleum reserves

as of 12/31/07 (mill. bbls.)

	Crude Oil	NGL	Total
New reserves	36	2	38
Production	22	1	23
Net annual change	14	1	15
Proved reserves	200	9	209

### Natural gas reserves

as of 12/31/07 (Bcf)

	Associated Dissolved	Non- Associated	Dry Gas
New reserves	14	228	241
Production	5	95	100
Net annual change	9	133	141
Proved reserves	30	928	954

### Cost of drilling and equipping wells

	Cost/ft. (\$)	Cost/ well (\$)	Total Cost (thous. \$)
Oil	517	4,370,798	397,743
Gas	689	6,201,478	998,438
Dry	527	4,527,427	362,194

### Marginal oil wells

Producing marginal wells	1,033
Crude oil production in bbls. (thous.)	2,324
Crude oil production b/d (thous.)	6

### Marginal natural gas wells

as of 12/31/07

Producing marginal wells	1,194
Natural gas production (MMcf)	16,053

### Mineral Lease Royalties, Bonuses & Rent

Oil	\$ 1,947,608
Gas	\$ 293,022
Total Royalties	\$ 6,006,381

Horizontal wells drilled	21
--------------------------	----

### Average number of employees

Oil and natural gas extraction	5,480
Refining	1,953
Transportation	1,501
Wholesale	2,247
Retail	15,891
Pipeline construction	1,294
Oilfield machinery	76
Total petroleum industry	28,442

*Discovered in 1946, Mallalieu West Field in Mississippi is the highest producing oil field in 2007.*

Source: For specific methodology and source details, please see pages 6 and 127.





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## 2007 Industry Statistics

### Number of wells drilled

	Exploratory	Development	Total
Oil	NA	NA	NA
Gas	NA	NA	NA
Dry	NA	NA	NA
Total	NA	NA	NA

### Total footage drilled

(thous. ft.)

	Exploratory	Development	Total
Oil	NA	NA	NA
Gas	NA	NA	NA
Dry	NA	NA	NA
Total	NA	NA	NA

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

### New-field wildcats drilled

	NA
--	----

Footage (thous. ft.)

NA

### Average rotary rigs active

0

### Permits

0

### Statewide rank

	Crude Oil	Natural Gas
Wells drilled	27th	30th
Production	30th	NA
Reserves (2007)	NA	NA

### Number of operators

--

### Number of producing wells

(12/31/07)

Crude oil	NA
Natural gas	NA
Total	NA

### Average production

Crude oil (thous. b/d)	NA
NGL (thous. b/d)	NA
Natural gas (MMcf/day)	NA

### Total production

Crude oil (YTD bbls, in thous.)	NA
Natural gas (YTD MMcf)	NA

### Natural gas marketed production

(MMcf)

0

### Average output per producing well

Crude oil (bbls.)	NA
Natural gas (Mcf)	NA

### Coalbed methane (YTD MMcf)

NA

Oil Wells	NA
Gas Wells	NA
Daily Average (MMcf) / Well	NA

### Heavy oil (YTD bbls, in thous.)

NA

Wells	NA
Av. bbls per day	NA
Av. bbls per well/d	NA

Source: For specific methodology and source details, please see pages 6 and 127.

## 2007 Latest Available Data

### Petroleum reserves

as of 12/31/07 (mill. bbls.)

	Crude Oil	NGL	Total
New reserves	NA	NA	NA
Production	NA	NA	NA
Net annual change	NA	NA	NA
Proved reserves	NA	NA	NA

### Natural gas reserves

as of 12/31/07 (Bcf)

	Associated Dissolved	Non- Associated	Dry Gas
New reserves	NA	NA	NA
Production	NA	NA	NA
Net annual change	NA	NA	NA
Proved reserves	NA	NA	NA

### Cost of drilling and equipping wells

	Cost/ft. (\$)	Cost/ well (\$)	Total Cost (thous. \$)
Oil	NA	NA	NA
Gas	NA	NA	NA
Dry	NA	NA	NA

### Marginal oil wells

Producing marginal wells	NA
Crude oil production in bbls. (thous.)	NA
Crude oil production b/d (thous.)	NA

### Marginal natural gas wells

as of 12/31/07

Producing marginal wells	NA
Natural gas production (MMcf)	NA

### Mineral Lease Royalties, Bonuses & Rent

Oil	--
Gas	--
Total Royalties	\$14,904,298

### Horizontal wells drilled

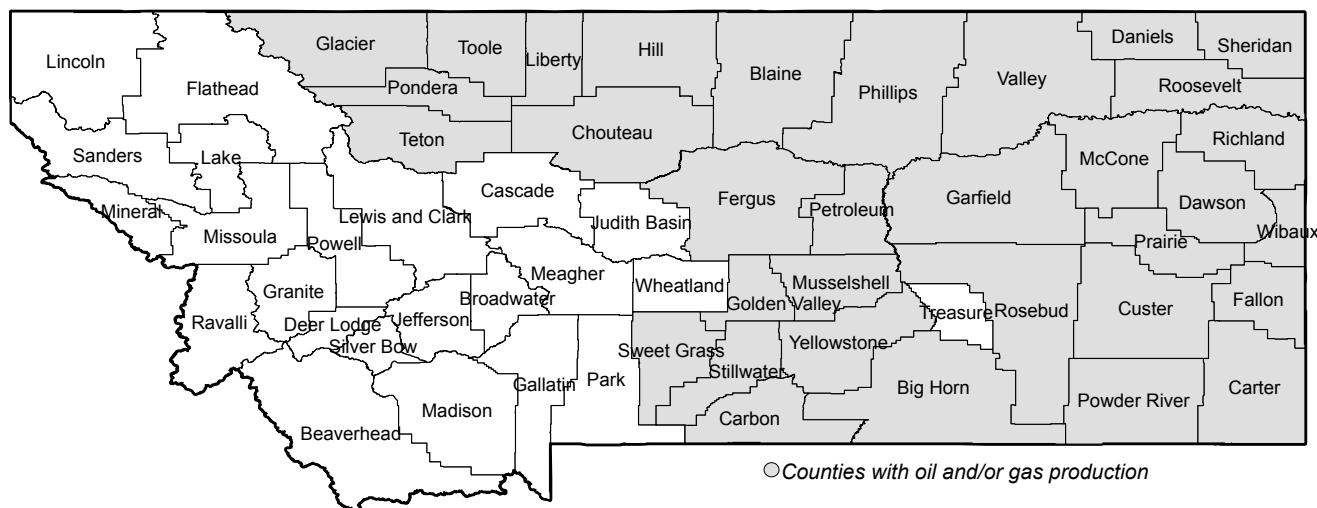
0

### Average number of employees

Oil and natural gas extraction	94
Refining	491
Transportation	3,450
Wholesale	4,174
Retail	25,377
Pipeline construction	405
Oilfield machinery	0
Total petroleum industry	33,991

While there is no commercial gas production in Missouri, 47 domestic gas wells are being used in private homes and small businesses to fuel heating appliances.

# MONTANA



## Background Information

### Counties

Number of counties	56
With oil and/or gas production	33

### First year of production

Crude oil	1916
Natural gas	1915

### Year and amount of peak production

Crude oil — 48,460 thous. bbls.	1968
Natural gas — 116,848 MMcf	2007

### Deepest producing well (ft.)

Crude oil	22,625
Natural gas	19,999

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

2006	22,037
------	--------

### Cumulative number of total wells drilled as of 12/31/07 (excluding service wells)

Oil wells	14,904	35%
Gas wells	10,199	24%
Dry holes	17,361	41%
Total	42,464	100%

### Cumulative crude oil wellhead value as of 12/31/07 (thous. \$)

\$21,951,052

### Cumulative production & new reserves as of 12/31/07

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	2,046	56	2,102	4,570
Production	1,648	46	1,694	3,454

## Value of Oil and Gas

### Average wellhead price (2007)

Crude oil (\$/bbl.)	\$ 64.64
Natural gas (\$/Mcf)	\$ 5.72

### Wellhead value of production (2007, in thous. \$)

Crude oil	\$2,251,347
Natural gas	\$ 668,371
Total	\$2,919,718

### Average natural gas price (2007, \$/Mcf)

Residential consumers	\$ 9.91
Commercial consumers	\$ 9.76
Industrial consumers	\$ 9.75
Electric utilities	NA
City Gate	\$ 6.42

### Severance taxes paid (2007, in thous. \$)

\$242,776

### Top 10 Producing Counties (2007 on a BOE basis)

County	% Production	
	State	US
Richland	40.62	0.42
Fallon	21.49	0.17
Phillips	6.21	0.05
Big Horn	4.50	0.04
Blaine	4.45	0.04
Hill	4.30	0.03
Sheridan	3.52	0.03
Roosevelt	2.78	0.02
Toole	2.10	0.02
Wibaux	1.71	0.01

## 2007 Industry Statistics

### Number of wells drilled

	Exploratory	Development	Total
Oil	130	208	338
Gas	40	420	460
Dry	20	44	64
Total	190	672	862

### Total footage drilled

(thous. ft.)

	Exploratory	Development	Total
Oil	1,348.7	2,031.2	3,379.9
Gas	76.3	719.4	795.7
Dry	72.9	128.3	201.2
Total	1,498.0	2,878.9	4,376.9

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

New-field wildcats drilled	107
Footage (thous. ft.)	801.4

Average rotary rigs active	17
----------------------------	----

Permits	1,004
---------	-------

### Statewide rank

	Crude Oil	Natural Gas
Wells drilled	15th	14th
Production	11th	17th
Reserves (2007)	14th	20th

Number of operators	244
---------------------	-----

### Number of producing wells

(12/31/07)

Crude oil	4,873
Natural gas	6,206
Total	11,079

### Average production

Crude oil (thous. b/d)	95
NGL (thous. b/d)	0.2
Natural gas (MMcf/day)	243

### Total production

Crude oil (YTD bbls, in thous.)	34,815
Natural gas (YTD MMcf)	88,833

### Natural gas marketed production

(MMcf)	116,848
--------	---------

### Average output per producing well

Crude oil (bbls.)	7,144
Natural gas (Mcf)	14,314

Coalbed methane (YTD MMcf)	13,146
----------------------------	--------

Oil Wells	3
Gas Wells	910
Daily Average (MMcf) / Well	36

Heavy oil (YTD bbls, in thous.)	223
---------------------------------	-----

Wells	83
Av. bbls per day	0.6
Av. bbls per well/d	2,690

Source: For specific methodology and source details, please see pages 6 and 127.

## 2007 Latest Available Data

### Petroleum reserves

as of 12/31/07 (mill. bbls.)

	Crude Oil	NGL	Total
New reserves	26	2	28
Production	35	1	36
Net annual change	-9	1	-8
Proved reserves	410	11	421

### Natural gas reserves

as of 12/31/07 (Bcf)

	Associated Dissolved	Non- Associated	Dry Gas
New reserves	45	66	107
Production	21	92	112
Net annual change	24	-26	-5
Proved reserves	219	848	1,052

### Cost of drilling and equipping wells

	Cost/ft. (\$)	Cost/ well (\$)	Total Cost (thous. \$)
Oil	451	4,507,413	1,523,506
Gas	320	552,867	254,319
Dry	417	1,311,719	83,950

### Marginal oil wells

Producing marginal wells	2,944
Crude oil production in bbls. (thous.)	3,535
Crude oil production b/d (thous.)	10

### Marginal natural gas wells

as of 12/31/07

Producing marginal wells	5,334
Natural gas production (MMcf)	43,672

### Mineral Lease Royalties, Bonuses & Rent

Oil	\$26,767,229
Gas	\$19,864,216
Total Royalties	\$97,658,026

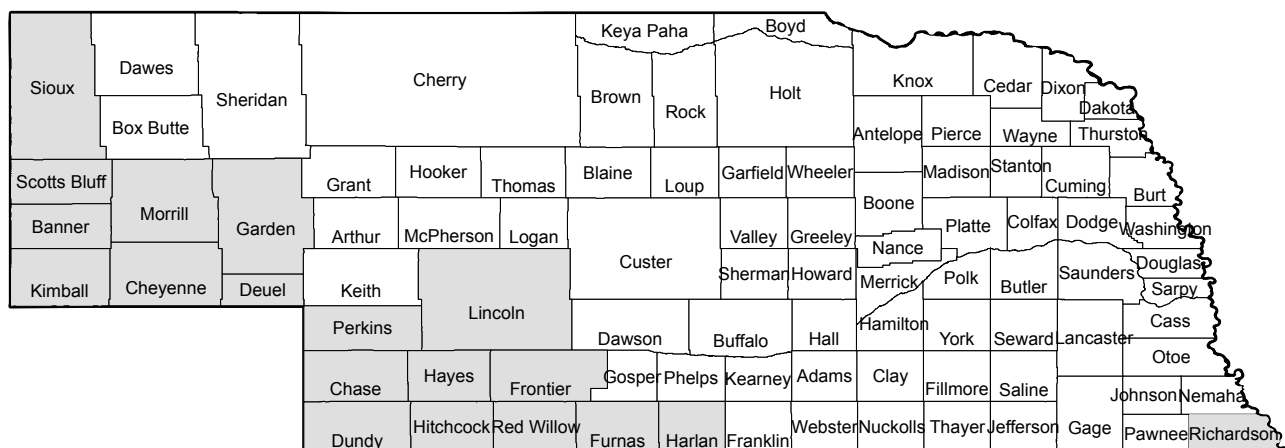
Horizontal wells drilled	277
--------------------------	-----

### Average number of employees

Oil and natural gas extraction	2,752
Refining	975
Transportation	754
Wholesale	990
Retail	5,271
Pipeline construction	461
Oilfield machinery	0
Total petroleum industry	11,203

Over 20% of the gas production in Montana comes from the Cedar Creek Field. Discovered in the early 1900s, over 100 wells were completed in 2007 to contribute to the top producing field in the state.

# NEBRASKA



○ Counties with oil and/or gas production

## Background Information

### Counties

Number of counties	93
With oil and/or gas production	19

### First year of production

Crude oil	1939
Natural gas	1950

### Year and amount of peak production

Crude oil —24,894 thous. bbls.	1962
Natural gas —15,743 MMcf	1961

### Deepest producing well (ft.)

Crude oil	11,761
Natural gas	5,832

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

1997	13,128
------	--------

### Cumulative number of total wells drilled as of 12/31/07 (excluding service wells)

Oil wells	6,054	30%
Gas wells	425	2%
Dry holes	13,468	68%
Total	19,947	100%

### Cumulative crude oil wellhead value as of 12/31/07 (thous. \$)

\$4,516,591

### Cumulative production & new reserves as of 12/31/07

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	514	NA	514	NA
Production	506	NA	506	NA

## Value of Oil and Gas

### Average wellhead price (2007)

Crude oil (\$/bbl.)	\$62.78
Natural gas (\$/Mcf)	NA

### Wellhead value of production (2007, in thous. \$)

Crude oil	\$146,529
Natural gas	NA
Total	\$146,529

### Average natural gas price (2007, \$/Mcf)

Residential consumers	\$11.15
Commercial consumers	\$ 9.16
Industrial consumers	\$ 7.97
Electric utilities	\$ 8.97
City Gate	\$ 7.67

### Severance taxes paid (2007, in thous. \$)

\$2,893

### Top 10 Producing Counties (2007 on a BOE basis)

County	% Production	
	State	US
Kimball	25.91	0.01
Hitchcock	21.68	<0.01
Cheyenne	12.81	<0.01
Red Willow	11.32	<0.01
Dundy	10.64	<0.01
Banner	4.35	<0.01
Deuel	2.53	<0.01
Morrill	2.43	<0.01
Chase	1.73	<0.01
Hayes	1.66	<0.01

## 2007 Industry Statistics

### Number of wells drilled

	Exploratory	Development	Total
Oil	6	11	17
Gas	11	94	105
Dry	16	27	43
Total	33	132	165

### Total footage drilled

(thous. ft.)

	Exploratory	Development	Total
Oil	35.1	50.9	86.0
Gas	32.6	240.2	272.8
Dry	66.9	102.3	169.2
Total	134.6	393.4	528.0

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

### New-field wildcats drilled

21

Footage (thous. ft.) 82.6

### Average rotary rigs active

0

### Permits

228

### Statewide rank

	Crude Oil	Natural Gas
Wells drilled	23rd	25th
Production	22nd	27th
Reserves (2007)	24th	NA

### Number of operators

106

### Number of producing wells

(12/31/07)

Crude oil	1,211
Natural gas	195
Total	1,406

### Average production

Crude oil (thous. b/d)	6
NGL (thous. b/d)	0
Natural gas (MMcf/day)	4

### Total production

Crude oil (YTD bbls, in thous.)	2,333
Natural gas (YTD MMcf)	1,282

### Natural gas marketed production

(MMcf) 1,555

### Average output per producing well

Crude oil (bbls.)	1,926
Natural gas (Mcf)	6,576

### Coalbed methane (YTD MMcf)

NA

### Oil Wells

NA

### Gas Wells

NA

### Daily Average (MMcf) / Well

NA

### Heavy oil (YTD bbls, in thous.)

NA

### Wells

NA

### Av. bbls per day

NA

### Av. bbls per well/d

NA

Source: For specific methodology and source details, please see pages 6 and 127.

## 2007 Latest Available Data

### Petroleum reserves

as of 12/31/07 (mill. bbls.)

	Crude Oil	NGL	Total
New reserves	0	NA	0
Production	2	NA	2
Net annual change	-2	NA	-2
Proved reserves	12	NA	12

### Natural gas reserves

as of 12/31/07 (Bcf)

	Associated Dissolved	Non- Associated	Dry Gas
New reserves	NA	NA	NA
Production	NA	NA	NA
Net annual change	NA	NA	NA
Proved reserves	NA	NA	NA

### Cost of drilling and equipping wells

	Cost/ft. (\$)	Cost/ well (\$)	Total Cost (thous. \$)
Oil	238	1,205,265	20,489
Gas	270	700,515	73,554
Dry	150	588,846	25,320

### Marginal oil wells

Producing marginal wells	1,153
Crude oil production in bbls. (thous.)	1,575
Crude oil production b/d (thous.)	4

### Marginal natural gas wells

as of 12/31/07

Producing marginal wells	176
Natural gas production (MMcf)	1,282

### Mineral Lease Royalties, Bonuses & Rent

Oil	\$409,124
Gas	\$123,992
Total Royalties	\$570,759

### Horizontal wells drilled

1

### Average number of employees

Oil and natural gas extraction	249
Refining	122
Transportation	1,580
Wholesale	1,243
Retail	9,006
Pipeline construction	860
Oilfield machinery	0
Total petroleum industry	13,060

*First drilled in 1956, just over 400 barrels of oil were produced in Kleinholz Field in Nebraska. In 2007, the field produced over 300,000 barrels as the top producing field in the state.*

# NEVADA



○ Counties with oil and/or gas production

## Background Information

### Counties

Number of counties	17
With oil and/or gas production	3

### First year of production

Crude oil	1954
Natural gas	NA

### Year and amount of peak production

Crude oil — 3,230 thous. bbls.	1988
Natural gas — 53	1991

### Deepest producing well (ft.)

Crude oil	8,050
Natural gas	NA

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

1980	19,562
------	--------

### Cumulative number of total wells drilled as of 12/31/07 (excluding service wells)

Oil wells	121	14%
Gas wells	2	0%
Dry holes	780	86%
Total	903	100%

### Cumulative crude oil wellhead value

as of 12/31/07 (thous. \$)	\$873,543
----------------------------	-----------

### Cumulative production & new reserves as of 12/31/07

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	NA	NA	NA	NA
Production	NA	NA	NA	NA

## Value of Oil and Gas

### Average wellhead price (2007)

Crude oil (\$/bbl.)	\$64.20
Natural gas (\$/Mcf)	NA

### Wellhead value of production (2007, in thous. \$)

Crude oil	26,194
Natural gas	NA
Total	26,194

### Average natural gas price (2007, \$/Mcf)

Residential consumers	\$14.17
Commercial consumers	\$12.03
Industrial consumers	\$11.77
Electric utilities	\$ 6.31
City Gate	\$ 8.72

### Severance taxes paid (2007, in thous. \$)

### Top Producing Counties (2007 on a BOE basis)

County	% Production State	US
Nye	89.63	<0.01
Eureka	9.93	<0.01
Elko	0.43	<0.01

## 2007 Industry Statistics

### Number of wells drilled

	Exploratory	Development	Total
Oil	NA	NA	NA
Gas	NA	NA	NA
Dry	2	NA	2
Total	2	NA	2

### Total footage drilled

(thous. ft.)

	Exploratory	Development	Total
Oil	NA	NA	NA
Gas	NA	NA	NA
Dry	14.6	NA	14.6
Total	14.6	NA	14.6

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

New-field wildcats drilled	2
Footage (thous. ft.)	14.6

Average rotary rigs active	2
----------------------------	---

Permits	15
---------	----

### Statewide rank

	Crude Oil	Natural Gas
Wells drilled	30th	35th
Production	27th	33rd
Reserves (2007)	NA	NA

Number of operators	8
---------------------	---

### Number of producing wells

(12/31/07)

Crude oil	74
Natural gas	0
Total	74

### Average production

Crude oil (thous. b/d)	1
NGL (thous. b/d)	0
Natural gas (MMcf/day)	0

### Total production

Crude oil (YTD bbls, in thous.)	410
Natural gas (YTD MMcf)	0

### Natural gas marketed production

(MMcf)	5
--------	---

### Average output per producing well

Crude oil (bbls.)	5,542
Natural gas (Mcf)	0

Coalbed methane (YTD MMcf)	NA
----------------------------	----

Oil Wells	NA
Gas Wells	NA
Daily Average (MMcf) / Well	NA

Heavy oil (YTD bbls, in thous.)	NA
---------------------------------	----

Wells	NA
Av. bbls per day	NA
Av. bbls per well/d	NA

Source: For specific methodology and source details, please see pages 6 and 127.

## 2007 Latest Available Data

### Petroleum reserves

as of 12/31/07 (mill. bbls.)

	Crude Oil	NGL	Total
New reserves	NA	NA	NA
Production	NA	NA	NA
Net annual change	NA	NA	NA
Proved reserves	NA	NA	NA

### Natural gas reserves

as of 12/31/07 (Bcf)

	Associated Dissolved	Non- Associated	Dry Gas
New reserves	NA	NA	NA
Production	NA	NA	NA
Net annual change	NA	NA	NA
Proved reserves	NA	NA	NA

### Cost of drilling and equipping wells

	Cost/ft. (\$)	Cost/ well (\$)	Total Cost (thous. \$)
Oil	NA	NA	NA
Gas	NA	NA	NA
Dry	163	1,186,392	2,373

### Marginal oil wells

Producing marginal wells	50
Crude oil production in bbls. (thous.)	125
Crude oil production b/d (thous.)	0

### Marginal natural gas wells

as of 12/31/07

Producing marginal wells	NA
Natural gas production (MMcf)	NA

### Mineral Lease Royalties, Bonuses & Rent

Oil	\$ 2,610,208
Gas	--
Total Royalties	\$14,663,004

Horizontal wells drilled	0
--------------------------	---

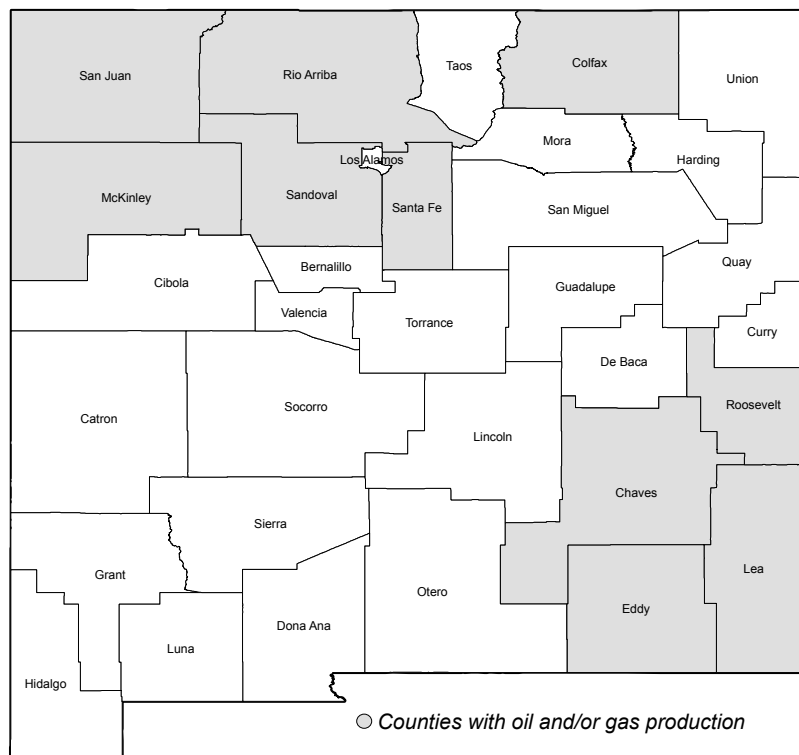
### Average number of employees

Oil and natural gas extraction	182
Refining	217
Transportation	23
Wholesale	787
Retail	8,563
Pipeline construction	681
Oilfield machinery	0
Total petroleum industry	10,453

Almost 40% of the oil production in Nevada is produced from the Trap Spring Field. This field was discovered in the mid 1970s.



# NEW MEXICO



○ Counties with oil and/or gas production

## Background Information

### Counties

Number of counties	33
With oil and/or gas production	10

### First year of production

Crude oil	1911
Natural gas	1924

### Year and amount of peak production

Crude oil — 129,227 thous. bbls.	1969
Natural gas — 1,689,125 MMcf	2001

### Deepest producing well (ft.)

Crude oil	18,380
Natural gas	26,579

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

1969	22,926
------	--------

### Cumulative number of total wells drilled as of 12/31/07 (excluding service wells)

Oil wells	50,226	46%
Gas wells	39,703	37%
Dry holes	18,504	17%
Total	108,433	100%

### Cumulative crude oil wellhead value

as of 12/31/07 (thous. \$)	\$61,738,389
----------------------------	--------------

### Cumulative production & new reserves as of 12/31/07

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	7,207	3,327	10,534	82,484
Production	6,540	2,378	8,918	65,236

## Value of Oil and Gas

### Average wellhead price (2007)

Crude oil (\$/bbl.)	\$68.94
Natural gas (\$/Mcf)	\$ 6.88

### Wellhead value of production (2007, in thous. \$)

Crude oil	\$ 4,055,809
Natural gas	\$10,628,430
Total	\$14,684,239

### Average natural gas price (2007, \$/Mcf)

Residential consumers	\$11.99
Commercial consumers	\$10.00
Industrial consumers	\$ 8.54
Electric utilities	NA
City Gate	\$ 6.45

### Severance taxes paid (2007, in thous. \$)

	\$ 987,921
--	------------

### Top 10 Producing Counties (2007 on a BOE basis)

County	% Production	
	State	US
San Juan	36.82	2.07
Rio Arriba	23.38	1.02
Eddy	18.74	0.82
Lea	17.56	0.77
Colfax	1.63	0.07
Chaves	1.60	0.07
Roosevelt	0.20	<0.01
Sandoval	0.06	<0.01
McKinley	<0.01	<0.01
Santa Fe	<0.01	<0.01

## 2007 Industry Statistics

### Number of wells drilled

	Exploratory	Development	Total
Oil	19	524	543
Gas	25	1,182	1,207
Dry	31	57	88
Total	75	1,763	1,838

### Total footage drilled

(thous. ft.)

	Exploratory	Development	Total
Oil	104.1	3,351.2	3,455.3
Gas	215.4	6,806.8	7,022.2
Dry	171.7	399.8	571.5
Total	491.2	10,557.8	11,049.0

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

New-field wildcats drilled	45
Footage (thous. ft.)	300.8

Average rotary rigs active	78
----------------------------	----

Permits	2,697
---------	-------

### Statewide rank

	Crude Oil	Natural Gas
Wells drilled	7th	7th
Production	7th	5th
Reserves (2007)	8th	5th

Number of operators	556
---------------------	-----

### Number of producing wells

(12/31/07)

Crude oil	21,644
Natural gas	32,535
Total	54,179

### Average production

Crude oil (thous. b/d)	146
NGL (thous. b/d)	17
Natural gas (MMcf/day)	3,546

### Total production

Crude oil (YTD bbls, in thous.)	53,300
Natural gas (YTD MMcf)	1,294,420

### Natural gas marketed production

(MMcf)	1,544,830
--------	-----------

### Average output per producing well

Crude oil (bbls.)	2,463
Natural gas (Mcf)	39,785

Coalbed methane (YTD MMcf)	486,513
----------------------------	---------

Oil Wells	1
Gas Wells	5,497
Daily Average (MMcf) / Well	1,333

Heavy oil (YTD bbls, in thous.)	15
---------------------------------	----

Wells	31
Av. bbls per day	0.0
Av. bbls per well/d	469

Source: For specific methodology and source details, please see pages 6 and 127.

## 2007 Latest Available Data

### Petroleum reserves

as of 12/31/07 (mill. bbls.)

	Crude Oil	NGL	Total
New reserves	84	59	143
Production	54	76	130
Net annual change	30	-17	13
Proved reserves	735	844	1,579

### Natural gas reserves

as of 12/31/07 (Bcf)

	Associated Dissolved	Non- Associated	Dry Gas
New reserves	250	488	660
Production	181	1,264	1,349
Net annual change	69	-776	-689
Proved reserves	1,841	16,556	17,245

### Cost of drilling and equipping wells

	Cost/ft. (\$)	Cost/ well (\$)	Total Cost (thous. \$)
Oil	282	1,794,905	974,634
Gas	249	1,447,889	1,747,602
Dry	419	2,723,603	239,677

### Marginal oil wells

Producing marginal wells	18,257
Crude oil production in bbls. (thous.)	22,618
Crude oil production b/d (thous.)	62

### Marginal natural gas wells

as of 12/31/07

Producing marginal wells	21,995
Natural gas production (MMcf)	274,675

### Mineral Lease Royalties, Bonuses & Rent

Oil	\$ 296,545,092
Gas	\$ 692,319,252
Total Royalties	\$ 1,195,256,231

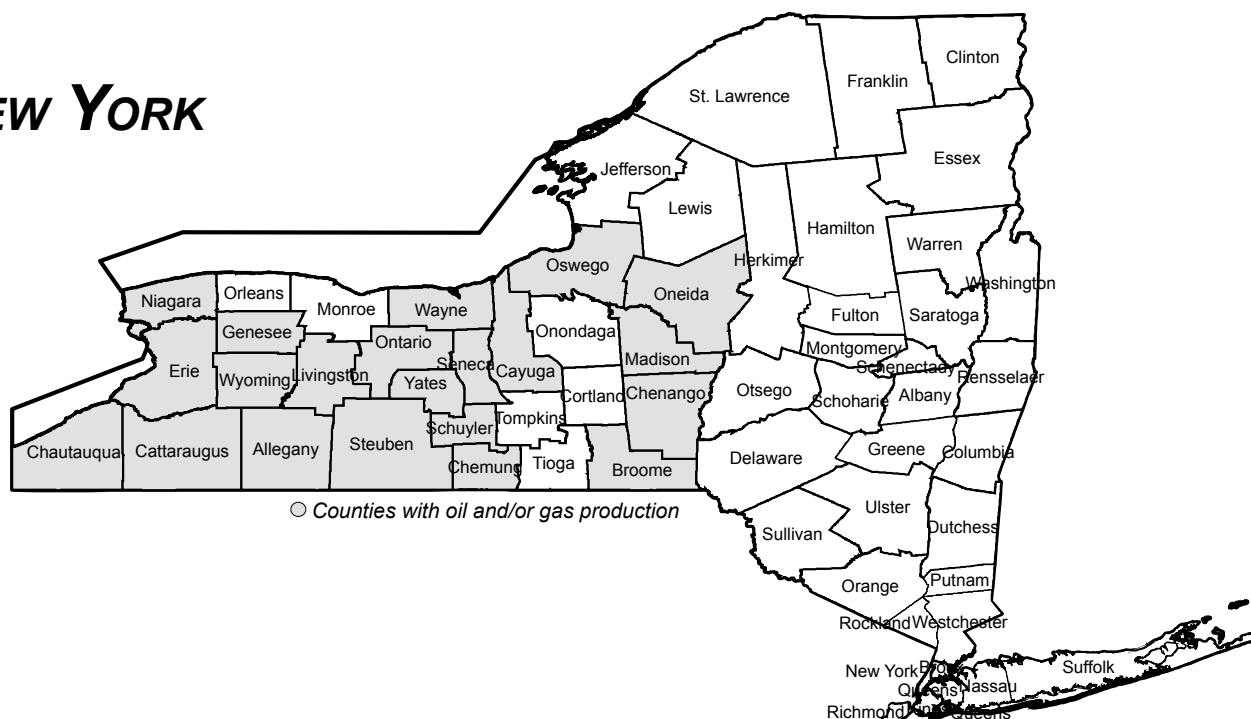
Horizontal wells drilled	181
--------------------------	-----

### Average number of employees

Oil and natural gas extraction	15,185
Refining	736
Transportation	1,728
Wholesale	1,628
Retail	7,922
Pipeline construction	2,070
Oilfield machinery	188
Total petroleum industry	29,457

Over 600 wells were completed in 2007 in Basin Field in New Mexico to help add to the almost 50% of gas production for the state. This field was discovered in the early 1940s.

# NEW YORK



○ Counties with oil and/or gas production

## Background Information

### Counties

Number of counties	62
With oil and/or gas production	21

### First year of production

Crude oil	1865
Natural gas	1821

### Year and amount of peak production

Crude oil — 6,685 thous. bbls.	1882
Natural gas — 55,980 MMcf	2006

### Deepest producing well (ft.)

Crude oil	3,990
Natural gas	13,420

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

2002	15,000
------	--------

### Cumulative number of total wells drilled as of 12/31/07 (excluding service wells)

Oil wells	15,340	54%
Gas wells	9,859	35%
Dry holes	3,307	11%
Total	28,506	100%

### Cumulative crude oil wellhead value

as of 12/31/07 (thous. \$)	\$1,176,845
----------------------------	-------------

### Cumulative production & new reserves

as of 12/31/07

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	NA	NA	NA	1,613
Production	NA	NA	NA	1,251

## Value of Oil and Gas

### Average wellhead price

(2007)

Crude oil (\$/bbl.)	\$69.46
Natural gas (\$/Mcf)	\$ 8.85

### Wellhead value of production

(2007, in thous. \$)

Crude oil	\$ 26,395
Natural gas	\$486,237
Total	\$512,632

### Average natural gas price

(2007, \$/Mcf)

Residential consumers	\$15.49
Commercial consumers	\$11.72
Industrial consumers	\$11.33
Electric utilities	\$ 8.09
City Gate	\$ 8.61

### Severance taxes paid

(2007, in thous. \$)

--

### Top 10 Producing Counties

(2007 on a BOE basis)

County	% Production State	US
Chemung	37.28	0.07
Steuben	33.07	0.05
Chautauqua	11.79	0.02
Cattaraugus	4.80	<0.01
Schuyler	3.32	<0.01
Erie	2.83	<0.01
Seneca	1.51	<0.01
Cayuga	1.35	<0.01
Genesee	1.27	<0.01
Wyoming	0.71	<0.01

## 2007 Industry Statistics

### Number of wells drilled

	Exploratory	Development	Total
Oil	16	116	132
Gas	34	168	202
Dry	12	4	16
Total	62	288	350

### Total footage drilled

(thous. ft.)

	Exploratory	Development	Total
Oil	31.2	196.9	228.1
Gas	204.0	534.9	738.9
Dry	123.8	15.4	139.1
Total	358.9	747.2	1,106.1

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

New-field wildcats drilled	28
Footage (thous. ft.)	255.9

Average rotary rigs active	6
----------------------------	---

Permits	545
---------	-----

### Statewide rank

	Crude Oil	Natural Gas
Wells drilled	13th	15th
Production	28th	22nd
Reserves (2007)	NA	23rd

Number of operators	427
---------------------	-----

### Number of producing wells

(12/31/07)

Crude oil	2,435
Natural gas	7,138
Total	9,573

### Average production

Crude oil (thous. b/d)	1
NGL (thous. b/d)	0.3
Natural gas (MMcf/day)	150

### Total production

Crude oil (YTD bbls, in thous.)	267
Natural gas (YTD MMcf)	54,586

### Natural gas marketed production

(MMcf) 54,942

### Average output per producing well

Crude oil (bbls.)	110
Natural gas (Mcf)	7,647

Coalbed methane (YTD MMcf)	NA
----------------------------	----

Oil Wells	NA
Gas Wells	NA
Daily Average (MMcf) / Well	NA

Heavy oil (YTD bbls, in thous.)	NA
---------------------------------	----

Wells	NA
Av. bbls per day	NA
Av. bbls per well/d	NA

Source: For specific methodology and source details, please see pages 6 and 127.

## 2007 Latest Available Data

### Petroleum reserves

as of 12/31/07 (mill. bbls.)

	Crude Oil	NGL	Total
New reserves	NA	NA	NA
Production	NA	NA	NA
Net annual change	NA	NA	NA
Proved reserves	NA	NA	NA

### Natural gas reserves

as of 12/31/07 (Bcf)

	Associated Dissolved	Non- Associated	Dry Gas
New reserves	9	48	57
Production	1	44	44
Net annual change	8	4	13
Proved reserves	10	365	376

### Cost of drilling and equipping wells

	Cost/ft. (\$)	Cost/ well (\$)	Total Cost (thous. \$)
Oil	168	290,156	38,301
Gas	181	662,989	133,924
Dry	516	4,487,182	71,795

### Marginal oil wells

Producing marginal wells	2,259
Crude oil production in bbls. (thous.)	267
Crude oil production b/d (thous.)	1

### Marginal natural gas wells

as of 12/31/07

Producing marginal wells	6,898
Natural gas production (MMcf)	12,755

### Mineral Lease Royalties, Bonuses & Rent

Oil	--
Gas	\$7,279
Total Royalties	\$7,279

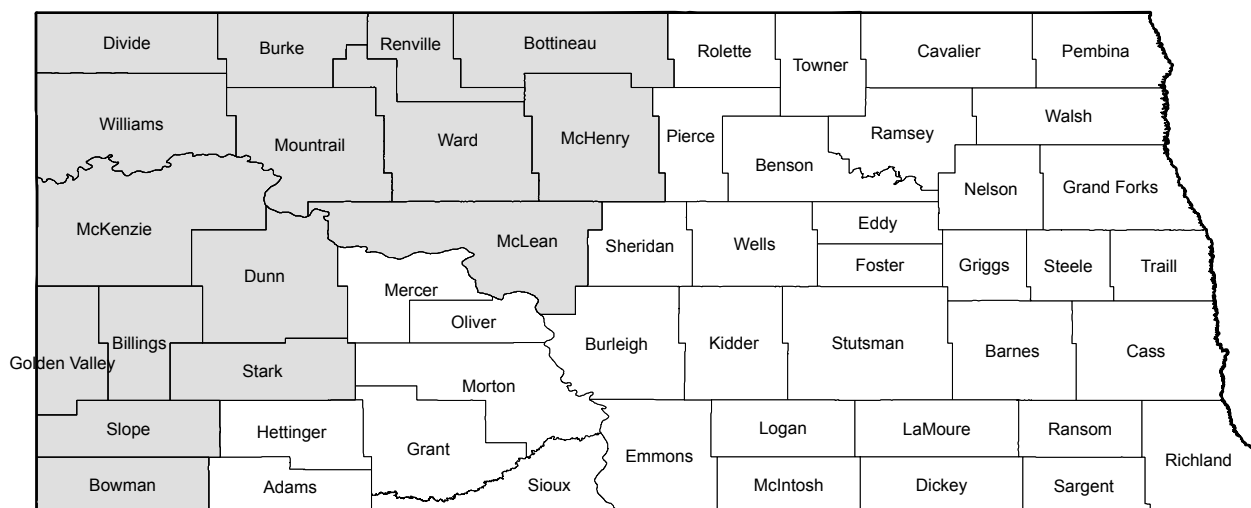
Horizontal wells drilled	3
--------------------------	---

### Average number of employees

Oil and natural gas extraction	1,296
Refining	451
Transportation	4,210
Wholesale	13,574
Retail	28,685
Pipeline construction	1,520
Oilfield machinery	0
Total petroleum industry	49,736

*Discovered around the turn of the century, Bradford Field in New York is the highest producing oil field in 2007. Over 100 wells were completed in the year.*

# NORTH DAKOTA



○ Counties with oil and/or gas production

## Background Information

### Counties

Number of counties	53
With oil and/or gas production	16

### First year of production

Crude oil	1951
Natural gas	1907

### Year and amount of peak production

Crude oil — 52,654 thous. bbls.	1984
Natural gas — 72,633 MMcf	1985

### Deepest producing well (ft.)

Crude oil (25,828 MD horizontal)	20,540
Natural gas (21,070 MD horizontal)	15,300

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

2007 (18,262 MD horizontal-2000)	21,727
----------------------------------	--------

### Cumulative number of total wells drilled as of 12/31/07 (excluding service wells)

Oil wells	10,057	59%
Gas wells	326	2%
Dry holes	6,671	39%
Total	17,054	100%

### Cumulative crude oil wellhead value

as of 12/31/07 (thous. \$)	\$30,381,131
----------------------------	--------------

### Cumulative production & new reserves

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	2,051	260	2,311	2,856
Production	1,580	180	1,760	2,361

## Value of Oil and Gas

### Average wellhead price (2007)

Crude oil (\$/bbl.)	\$ 65.30
Natural gas (\$/Mcf)	\$ 6.67

### Wellhead value of production (2007, in thous. \$)

Crude oil	\$2,942,287
Natural gas	\$ 365,149
Total	\$3,307,436

### Average natural gas price (2007, \$/Mcf)

Residential consumers	\$ 9.13
Commercial consumers	\$ 8.37
Industrial consumers	\$ 6.86
Electric utilities	\$ 6.41
City Gate	\$ 7.04

### Severance taxes paid (2007, in thous. \$)

### Top 10 Producing Counties (2007 on a BOE basis)

County	% Production	
	State	US
Bowman	39.24	0.37
McKenzie	14.35	0.11
Billings	11.27	0.08
Williams	10.04	0.07
Mountrail	5.16	0.04
Dunn	4.18	0.03
Bottineau	4.04	0.03
Stark	3.46	0.03
Burke	1.90	0.01
Divide	1.75	0.01

## 2007 Industry Statistics

### Number of wells drilled

	Exploratory	Development	Total
Oil	218	255	473
Gas	2	9	11
Dry	21	14	35
Total	241	278	519

### Total footage drilled

(thous. ft.)

	Exploratory	Development	Total
Oil	2,545.4	2,468.2	5,013.6
Gas	28.2	50.2	78.4
Dry	155.4	97.6	253.0
Total	2,728.9	2,616.1	5,345.0

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

New-field wildcats drilled	105
Footage (thous. ft.)	1,205.4

Average rotary rigs active	39
----------------------------	----

Permits	726
---------	-----

### Statewide rank

	Crude Oil	Natural Gas
Wells drilled	20th	26th
Production	9th	23rd
Reserves (2007)	13th	22nd

Number of operators	153
---------------------	-----

### Number of producing wells

(12/31/07)

Crude oil	4,841
Natural gas	303
Total	5,144

### Average production

Crude oil (thous. b/d)	116
NGL (thous. b/d)	6.8
Natural gas (MMcf/day)	51

### Total production

Crude oil (YTD bbls, in thous.)	42,249
Natural gas (YTD MMcf)	18,546

### Natural gas marketed production

(MMcf)	54,745
--------	--------

### Average output per producing well

Crude oil (bbls.)	8,727
Natural gas (Mcf)	61,207

Coalbed methane (YTD MMcf)	NA
----------------------------	----

Oil Wells	NA
Gas Wells	NA
Daily Average (MMcf) / Well	NA

Heavy oil (YTD bbls, in thous.)	NA
---------------------------------	----

Wells	NA
Av. bbls per day	NA
Av. bbls per well/d	NA

Source: For specific methodology and source details, please see pages 6 and 127.

## 2007 Latest Available Data

### Petroleum reserves

as of 12/31/07 (mill. bbls.)

	Crude Oil	NGL	Total
New reserves	115	9	124
Production	45	6	51
Net annual change	70	3	73
Proved reserves	482	58	540

### Natural gas reserves

as of 12/31/07 (Bcf)

	Associated Dissolved	Non- Associated	Dry Gas
New reserves	103	-10	85
Production	43	17	53
Net annual change	60	-27	32
Proved reserves	417	155	511

### Cost of drilling and equipping wells

	Cost/ft. (\$)	Cost/ well (\$)	Total Cost (thous. \$)
Oil	463	4,902,502	2,318,884
Gas	1,245	8,871,394	97,585
Dry	304	2,199,567	76,985

### Marginal oil wells

Producing marginal wells	3,289
Crude oil production in bbls. (thous.)	4,931
Crude oil production b/d (thous.)	14

### Marginal natural gas wells

as of 12/31/07

Producing marginal wells	188
Natural gas production (MMcf)	2,262

### Mineral Lease Royalties, Bonuses & Rent

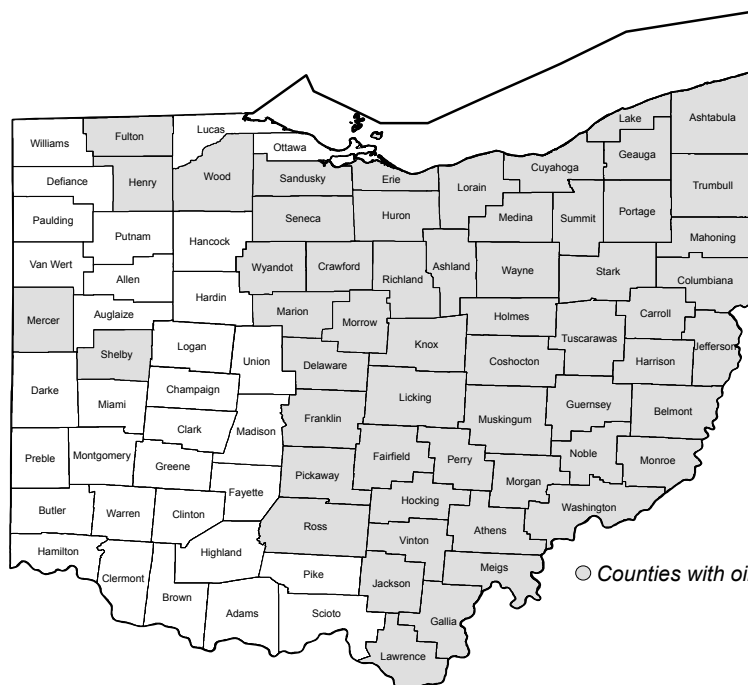
Oil	\$46,127,070
Gas	\$ 6,191,859
Total Royalties	\$64,776,633

Horizontal wells drilled	452
--------------------------	-----

### Average number of employees

Oil and natural gas extraction	3,522
Refining	0
Transportation	251
Wholesale	1,612
Retail	4,024
Pipeline construction	262
Oilfield machinery	0
Total petroleum industry	9,671

Almost 100% of the gas production in North Dakota is from the Beaver Lodge Field. This field was discovered in the early 1950s.



○ Counties with oil and/or gas production

## Background Information

### Counties

Number of counties	88
With oil and/or gas production	56

### First year of production

Crude oil	1860
Natural gas	1884

### Year and amount of peak production

Crude oil — 23,941 thous. bbls.	1896
Natural gas — 186,480 MMcf	1984

### Deepest producing well (ft.)

Crude oil	8,795
Natural gas	11,442

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

1967	11,442
------	--------

### Cumulative number of total wells drilled as of 12/31/07 (excluding service wells)

Oil wells	47,300	58%
Gas wells	23,102	28%
Dry holes	11,208	14%
Total	81,610	100%

### Cumulative crude oil wellhead value

as of 12/31/07 (thous. \$)	\$9,063,537
----------------------------	-------------

### Cumulative production & new reserves

as of 12/31/07

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	1,131	NA	1,131	9,752
Production	1,096	NA	1,096	8,962

## Value of Oil and Gas

### Average wellhead price

(2007)

Crude oil (\$/bbl.)	\$68.09
Natural gas (\$/Mcf)	\$ 7.59

### Wellhead value of production

(2007, in thous. \$)

Crude oil	\$ 371,431
Natural gas	\$ 668,641
Total	\$1,040,072

### Average natural gas price

(2007, \$/Mcf)

Residential consumers	\$13.47
Commercial consumers	\$11.74
Industrial consumers	\$10.63
Electric utilities	\$ 7.88
City Gate	\$ 8.64

### Severance taxes paid

(2007, in thous. \$)

	\$ 2,452
--	----------

### Top 10 Producing Counties

(2007 on a BOE basis)

County	% Production	
	State	US
Putnam	40.89	1.77
Meigs	23.52	0.93
Ross	2.88	0.12
Washington	2.66	0.12
Ashtabula	2.32	0.10
Lorain	2.11	0.09
Crawford	1.99	0.09
Muskingum	1.55	0.07
Wyandot	1.33	0.06
Athens	1.32	0.06

## 2007 Industry Statistics

### Number of wells drilled

	Exploratory	Development	Total
Oil	27	217	244
Gas	87	433	520
Dry	8	34	42
Total	122	684	806

### Total footage drilled

(thous. ft.)

	Exploratory	Development	Total
Oil	96.8	838.7	935.6
Gas	333.3	1,685.5	2,018.8
Dry	30.2	128.4	158.6
Total	460.3	2,652.6	3,112.9

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

New-field wildcats drilled	33
Footage (thous. ft.)	115.2

Average rotary rigs active	13
----------------------------	----

Permits	1,295
---------	-------

### Statewide rank

	Crude Oil	Natural Gas
Wells drilled	8th	11th
Production	18th	20th
Reserves (2007)	19th	17th

Number of operators	151
---------------------	-----

### Number of producing wells

(12/31/07)

Crude oil	16,192
Natural gas	20,507
Total	36,249

### Average production

Crude oil (thous. b/d)	11
NGL (thous. b/d)	2.2
Natural gas (MMcf/day)	152

### Total production

Crude oil (YTD bbls, in thous.)	3,958
Natural gas (YTD MMcf)	55,657

### Natural gas marketed production

(MMcf)	88,095
--------	--------

### Average output per producing well

Crude oil (bbls.)	244
Natural gas (Mcf)	2,714

Coalbed methane (YTD MMcf)	NA
----------------------------	----

Oil Wells	NA
Gas Wells	NA
Daily Average (MMcf) / Well	NA

Heavy oil (YTD bbls, in thous.)	NA
---------------------------------	----

Wells	NA
Av. bbls per day	NA
Av. bbls per well/d	NA

Source: For specific methodology and source details, please see pages 6 and 127.

## 2007 Latest Available Data

### Petroleum reserves

as of 12/31/07 (mill. bbls.)

	Crude Oil	NGL	Total
New reserves	3	NA	3
Production	4	NA	4
Net annual change	-1	NA	-1
Proved reserves	48	NA	48

### Natural gas reserves

as of 12/31/07 (Bcf)

	Associated Dissolved	Non- Associated	Dry Gas
New reserves	-65	188	123
Production	8	63	71
Net annual change	-73	125	52
Proved reserves	101	926	1,027

### Cost of drilling and equipping wells

	Cost/ft. (\$)	Cost/ well (\$)	Total Cost (thous. \$)
Oil	108	412,810	100,726
Gas	118	459,247	238,808
Dry	119	449,107	18,863

### Marginal oil wells

Producing marginal wells	0
Crude oil production in bbls. (thous.)	0
Crude oil production b/d (thous.)	0

### Marginal natural gas wells

as of 12/31/07

Producing marginal wells	20,001
Natural gas production (MMcf)	47,802

### Mineral Lease Royalties, Bonuses & Rent

Oil	\$183,965
Gas	\$621,770
Total Royalties	\$812,940

Horizontal wells drilled	4
--------------------------	---

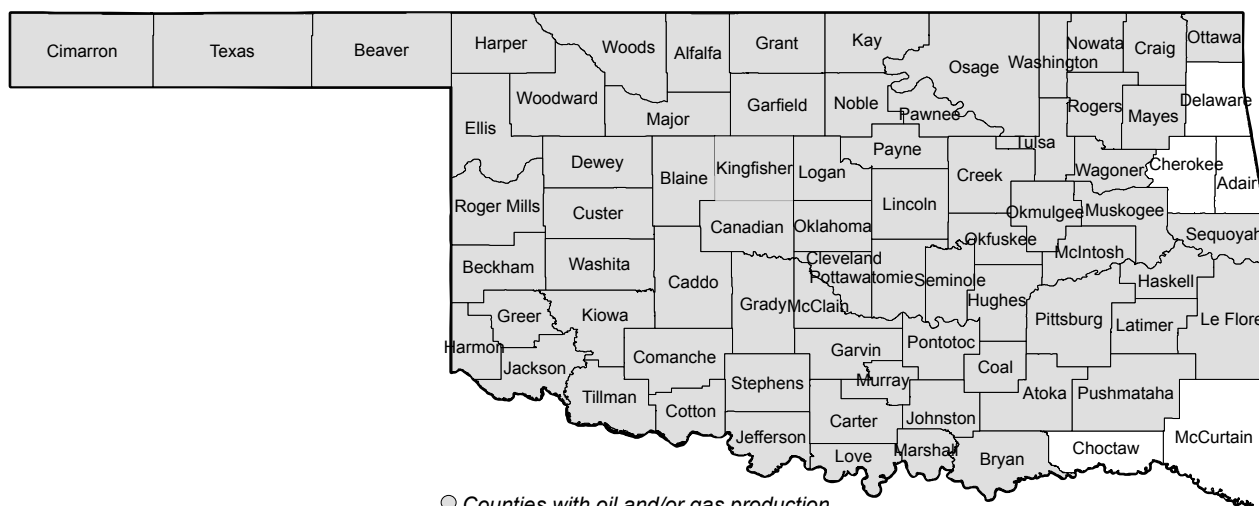
### Average number of employees

Oil and natural gas extraction	5,162
Refining	2,291
Transportation	4,416
Wholesale	5,555
Retail	34,576
Pipeline construction	1,394
Oilfield machinery	204
Total petroleum industry	53,598

*Canton Consolidated Field in Ohio was discovered in the early 1980s. Over the last 25 years, gas production has grown over 200%.*



# OKLAHOMA



○ Counties with oil and/or gas production

## Background Information

### Counties

Number of counties	77
With oil and/or gas production	71

### First year of production

Crude oil	1891
Natural gas	1902

### Year and amount of peak production

Crude oil — 277,775 thous. bbls.	1927
Natural gas — 2,153,852 MMcf	1991

### Deepest producing well (ft.)

Crude oil	22,450
Natural gas	27,400

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

1974	31,441
------	--------

### Cumulative number of total wells drilled as of 12/31/07 (excluding service wells)

Oil wells	241,942	53%
Gas wells	84,280	18%
Dry holes	135,927	29%
Total	462,149	100%

### Cumulative crude oil wellhead value as of 12/31/07 (thous. \$)

\$111,656,729

### Cumulative production & new reserves as of 12/31/07

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	14,898	5,513	20,411	116,605
Production	14,516	4,429	18,945	112,348

## Value of Oil and Gas

### Average wellhead price (2007)

Crude oil (\$/bbl.)	\$69.31
Natural gas (\$/Mcf)	\$ 6.24

### Wellhead value of production (2007, in thous. \$)

Crude oil	\$ 4,224,583
Natural gas	\$10,885,012
Total	\$15,109,595

### Average natural gas price (2007, \$/Mcf)

Residential consumers	\$12.06
Commercial consumers	\$10.93
Industrial consumers	\$ 9.18
Electric utilities	\$ 6.69
City Gate	\$ 8.14

### Severance taxes paid (2007, in thous. \$)

\$ 1,001,328

### Top 10 Producing Counties (2007 on a BOE basis)

County	% Production	
	State	US
Roger Mills	8.42	0.56
Latimer	6.92	0.36
Beckham	6.73	0.35
Caddo	5.68	0.29
Pittsburg	5.13	0.26
Grady	4.50	0.23
Washita	4.38	0.23
Texas	4.04	0.21
Stephens	3.89	0.20
Custer	3.17	0.16

## 2007 Industry Statistics

### Number of wells drilled

	Exploratory	Development	Total
Oil	77	806	883
Gas	417	1,906	2,323
Dry	102	280	382
Total	596	2,992	3,588

### Total footage drilled

(thous. ft.)

	Exploratory	Development	Total
Oil	589.3	4,147.0	4,736.3
Gas	4,070.6	14,217.7	18,288.2
Dry	678.2	1,289.3	1,967.5
Total	5,338.0	19,654.0	24,992.0

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

New-field wildcats drilled	262
Footage (thous. ft.)	2,497.9

Average rotary rigs active	188
----------------------------	-----

Permits	5,110
---------	-------

### Statewide rank

	Crude Oil	Natural Gas
Wells drilled	2nd	2nd
Production	6th	4th
Reserves (2007)	6th	4th

Number of operators	3,843
---------------------	-------

### Number of producing wells

(12/31/07)

Crude oil	51,160
Natural gas	38,164
Total	89,324

### Average production

Crude oil (thous. b/d)	140
NGL (thous. b/d)	30.9
Natural gas (MMcf/day)	4,370

### Total production

Crude oil (YTD bbls, in thous.)	51,093
Natural gas (YTD MMcf)	1,595,177

### Natural gas marketed production

(MMcf)	1,744,393
--------	-----------

### Average output per producing well

Crude oil (bbls.)	999
Natural gas (Mcf)	41,798

Coalbed methane (YTD MMcf)	62,272
----------------------------	--------

Oil Wells	11
Gas Wells	3,457
Daily Average (MMcf) / Well	171

Heavy oil (YTD bbls, in thous.)	NA
---------------------------------	----

Wells	NA
Av. bbls per day	NA
Av. bbls per well/d	NA

Source: For specific methodology and source details, please see pages 6 and 127.

## 2007 Latest Available Data

### Petroleum reserves

as of 12/31/07 (mill. bbls.)

	Crude Oil	NGL	Total
New reserves	-14	141	155
Production	53	84	137
Net annual change	-39	57	18
Proved reserves	530	949	1,479

### Natural gas reserves

as of 12/31/07 (Bcf)

	Associated Dissolved	Non- Associated	Dry Gas
New reserves	263	3,146	3,226
Production	104	1,656	1,659
Net annual change	159	1,490	1,567
Proved reserves	959	19,225	19,031

### Cost of drilling and equipping wells

	Cost/ft. (\$)	Cost/ well (\$)	Total Cost (thous. \$)
Oil	264	1,416,888	1,295,097
Gas	376	2,962,855	6,882,711
Dry	251	1,295,097	494,727

### Marginal oil wells

Producing marginal wells	46,988
Crude oil production in bbls. (thous.)	33,749
Crude oil production b/d (thous.)	92

### Marginal natural gas wells

as of 12/31/07

Producing marginal wells	26,707
Natural gas production (MMcf)	320,222

### Mineral Lease Royalties, Bonuses & Rent

Oil	\$ 11,051,414
Gas	\$ 33,365,160
Total Royalties	\$ 53,268,070

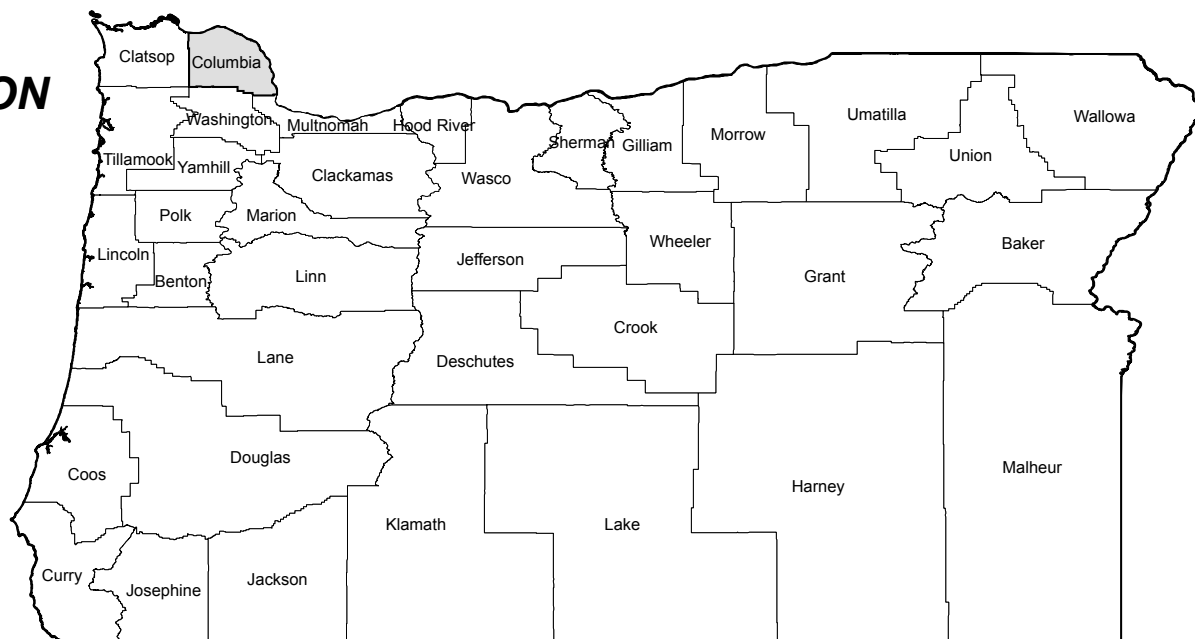
Horizontal wells drilled	759
--------------------------	-----

### Average number of employees

Oil and natural gas extraction	44,694
Refining	1,893
Transportation	5,076
Wholesale	3,650
Retail	13,570
Pipeline construction	1,968
Oilfield machinery	7,666
Total petroleum industry	78,517

Although drilling continued in 2007 in Sho-Vel-Tum Field in Oklahoma, production has fallen off since the field was discovered in the early 1900s. The field is still the top producing oil field in the state with over 8 million barrels produced.

# OREGON



○ Counties with oil and/or gas production

## Background Information

### Counties

Number of counties	36
With oil and/or gas production	1

### First year of production

Crude oil	NA
Natural gas	1979

### Year and amount of peak production

Crude oil —	NA
Natural gas — 5,000 MMcf	1980/81

### Deepest producing well (ft.)

Crude oil	NA
Natural gas	3,720

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

1979	13,177
------	--------

### Cumulative number of total wells drilled as of 12/31/07 (excluding service wells)

Oil wells	NA	NA
Gas wells	67	16%
Dry holes	361	84%
Total	428	100%

### Cumulative crude oil wellhead value

as of 12/31/07 (thous. \$)	NA
----------------------------	----

### Cumulative production & new reserves

as of 12/31/07

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	NA	NA	NA	NA
Production	NA	NA	NA	72

## Value of Oil and Gas

### Average wellhead price

(2007)

Crude oil (\$/bbl.)	NA
Natural gas (\$/Mcf)	\$5.27

### Wellhead value of production

(2007, in thous. \$)

Crude oil	NA
Natural gas	\$ 2,155
Total	\$ 2,155

### Average natural gas price

(2007, \$/Mcf)

Residential consumers	\$14.65
Commercial consumers	\$12.36
Industrial consumers	\$ 9.30
Electric utilities	\$ 6.10
City Gate	\$ 8.14

### Severance taxes paid

(2007, in thous. \$)	\$ 117
----------------------	--------

### Top Producing Counties

(2007 on a BOE basis)

County	% Production
State	US
Columbia	100 <0.01

## 2007 Industry Statistics

### Number of wells drilled

	Exploratory	Development	Total
Oil	NA	NA	NA
Gas	NA	NA	NA
Dry	NA	NA	NA
Total	NA	NA	NA

### Total footage drilled

(thous. ft.)

	Exploratory	Development	Total
Oil	NA	NA	NA
Gas	NA	NA	NA
Dry	NA	NA	NA
Total	NA	NA	NA

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

### New-field wildcats drilled

Footage (thous. ft.)	NA
----------------------	----

### Average rotary rigs active

0

### Permits

0

### Statewide rank

	Crude Oil	Natural Gas
Wells drilled	NA	31st
Production	NA	30th
Reserves (2007)	NA	NA

### Number of operators

2

### Number of producing wells

(12/31/07)

Crude oil	0
Natural gas	12
Total	12

### Average production

Crude oil (thous. b/d)	0
NGL (thous. b/d)	0
Natural gas (MMcf/day)	1

### Total production

Crude oil (YTD bbls, in thous.)	0
Natural gas (YTD MMcf)	371

### Natural gas marketed production

(MMcf)	409
--------	-----

### Average output per producing well

Crude oil (bbls.)	NA
Natural gas (Mcf)	30,936

### Coalbed methane (YTD MMcf)

NA

Oil Wells	NA
Gas Wells	NA
Daily Average (MMcf) / Well	NA

### Heavy oil (YTD bbls, in thous.)

NA

Wells	NA
Av. bbls per day	NA
Av. bbls per well/d	NA

Source: For specific methodology and source details, please see pages 6 and 127.

## 2007 Latest Available Data

### Petroleum reserves

as of 12/31/07 (mill. bbls.)

	Crude Oil	NGL	Total
New reserves	NA	NA	NA
Production	NA	NA	NA
Net annual change	NA	NA	NA
Proved reserves	NA	NA	NA

### Natural gas reserves

as of 12/31/07 (Bcf)

	Associated Dissolved	Non- Associated	Dry Gas
New reserves	NA	NA	NA
Production	NA	NA	NA
Net annual change	NA	NA	NA
Proved reserves	NA	NA	NA

### Cost of drilling and equipping wells

	Cost/ft. (\$)	Cost/ well (\$)	Total Cost (thous. \$)
Oil	NA	NA	NA
Gas	NA	NA	NA
Dry	NA	NA	NA

### Marginal oil wells

Producing marginal wells	NA
Crude oil production in bbls. (thous.)	NA
Crude oil production b/d (thous.)	NA

### Marginal natural gas wells

as of 12/31/07

Producing marginal wells	9
Natural gas production (MMcf)	134

### Mineral Lease Royalties, Bonuses & Rent

Oil	--
Gas	--
Total Royalties	\$1,062,727

### Horizontal wells drilled

0

### Average number of employees

Oil and natural gas extraction	46
Refining	430
Transportation	0
Wholesale	1,768
Retail	10,872
Pipeline construction	336
Oilfield machinery	0
Total petroleum industry	13,452

100% of the gas production in Oregon comes from the Mist Field. Since the discovery in the late 1970s with production under 2,000 MCFs, the field produced over 350,000 MCFs in 2007.

# PENNSYLVANIA



○ Counties with oil and/or gas production

## Background Information

### Counties

Number of counties	67
With oil and/or gas production	31

### First year of production

Crude oil	1859
Natural gas	1881

### Year and amount of peak production

Crude oil — 31,424 thous. bbls.	1891
Natural gas — 200,907 MMcf	2000

### Deepest producing well (ft.)

Crude oil	NA
Natural gas	NA

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

1974	21,432
------	--------

### Cumulative number of total wells drilled as of 12/31/07 (excluding service wells)

Oil wells	23,372	31%
Gas wells	48,781	64%
Dry holes	4,351	5%
Total	76,504	100%

### Cumulative crude oil wellhead value

as of 12/31/07 (thous. \$)	\$5,533,421
----------------------------	-------------

### Cumulative production & new reserves

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	1,362	NA	1,362	16,443
Production	1,359	NA	1,359	13,272

## Value of Oil and Gas

### Average wellhead price

(2007)

Crude oil (\$/bbl.)	\$70.00
Natural gas (\$/Mcf)	NA

### Wellhead value of production

(2007, in thous. \$)

Crude oil	\$255,710
Natural gas	NA
Total	\$255,710

### Average natural gas price

(2007, \$/Mcf)

Residential consumers	\$14.66
Commercial consumers	\$12.77
Industrial consumers	\$10.64
Electric utilities	\$ 8.01
City Gate	\$ 9.35

### Severance taxes paid

(2007, in thous. \$)

	--
--	----

### Top Producing Counties

(2007 on a BOE basis)

County	% Production
State	US
NA	NA

## 2007 Industry Statistics

### Number of wells drilled

	Exploratory	Development	Total
Oil	109	940	1,049
Gas	835	2,247	3,082
Dry	15	23	38
Total	959	3,210	4,169

### Total footage drilled

(thous. ft.)

	Exploratory	Development	Total
Oil	232.3	1,710.3	1,942.6
Gas	3,642.3	8,562.1	12,204.4
Dry	54.4	66.9	121.31
Total	3,929.3	10,339.3	14,268.3

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

New-field wildcats drilled	338
Footage (thous. ft.)	1,444.3

Average rotary rigs active	16
----------------------------	----

Permits	6,543
---------	-------

### Statewide rank

	Crude Oil	Natural Gas
Wells drilled	10th	4th
Production	20th	16th
Reserves (2007)	17th	12th

Number of operators	--
---------------------	----

### Number of producing wells

(12/31/07)

Crude oil	NA
Natural gas	NA
Total	NA

### Average production

Crude oil (thous. b/d)	NA
NGL (thous. b/d)	NA
Natural gas (MMcf/day)	NA

### Total production

Crude oil (YTD bbls, in thous.)	NA
Natural gas (YTD MMcf)	NA

### Natural gas marketed production

(MMcf) 182,277

### Average output per producing well

Crude oil (bbls.)	NA
Natural gas (Mcf)	NA

Coalbed methane (YTD MMcf)	NA
----------------------------	----

Oil Wells	NA
Gas Wells	NA
Daily Average (MMcf) / Well	NA

Heavy oil (YTD bbls, in thous.)	NA
---------------------------------	----

Wells	NA
Av. bbls per day	NA
Av. bbls per well/d	NA

Source: For specific methodology and source details, please see pages 6 and 127.

## 2007 Latest Available Data

### Petroleum reserves

as of 12/31/07 (mill. bbls.)

	Crude Oil	NGL	Total
New reserves	-6	NA	-6
Production	2	NA	2
Net annual change	-8	NA	-8
Proved reserves	12	NA	12

### Natural gas reserves

as of 12/31/07 (Bcf)

	Associated Dissolved	Non- Associated	Dry Gas
New reserves	-11	507	494
Production	10	173	183
Net annual change	-21	334	311
Proved reserves	130	3,247	3,361

### Cost of drilling and equipping wells

	Cost/ft. (\$)	Cost/ well (\$)	Total Cost (thous. \$)
Oil	162	299,179	313,838
Gas	115	456,449	1,406,776
Dry	163	519,485	19,740

### Marginal oil wells

Producing marginal wells	NA
Crude oil production in bbls. (thous.)	NA
Crude oil production b/d (thous.)	NA

### Marginal natural gas wells

as of 12/31/07

Producing marginal wells	0
Natural gas production (MMcf)	0

### Mineral Lease Royalties, Bonuses & Rent

Oil	\$ 374
Gas	\$68,904
Total Royalties	\$85,095

Horizontal wells drilled	39
--------------------------	----

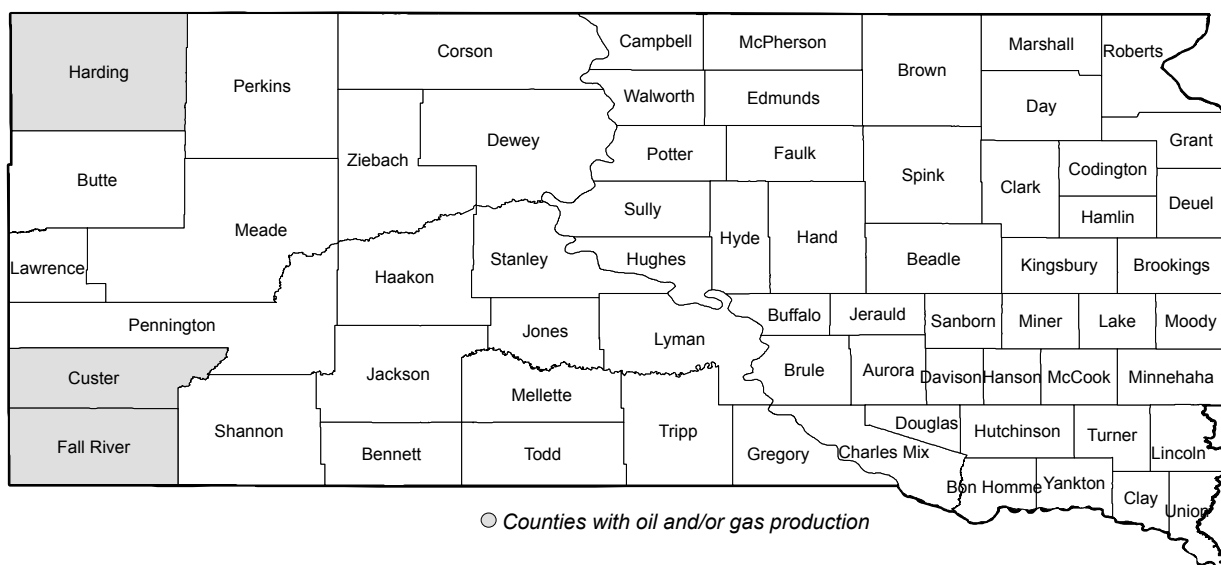
### Average number of employees

Oil and natural gas extraction	6,151
Refining	5,002
Transportation	5,351
Wholesale	11,015
Retail	36,134
Pipeline construction	2,043
Oilfield machinery	322
Total petroleum industry	66,018

### Between 2005 and 2007 more than 375

gas wells with suspected Marcellus intent had been permitted in Pennsylvania. With resource estimates of over 500 trillion cubic feet and a projected economic contribution of \$25 billion and 176,000 new jobs, the Marcellus looks to factor significantly in the state's projected oil and gas outlook.

# SOUTH DAKOTA



## Background Information

### Counties

Number of counties	66
With oil and/or gas production	3

### First year of production

Crude oil	1954
Natural gas	1979

### Year and amount of peak production

Crude oil — 1,668 thous. bbls.	1988
Natural gas — 4,369 MMcf	1989

### Deepest producing well (ft.)

Crude oil	15,159
Natural gas	7,337

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

2006	17,025
------	--------

### Cumulative number of total wells drilled as of 12/31/07 (excluding service wells)

Oil wells	411	24%
Gas wells	118	7%
Dry holes	1,188	69%
Total	1,717	100%

### Cumulative crude oil wellhead value as of 12/31/07 (thous. \$)

\$1,057,950

### Cumulative production & new reserves as of 12/31/07

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	NA	NA	NA	NA
Production	NA	NA	NA	NA

## Value of Oil and Gas

### Average wellhead price (2007)

Crude oil (\$/bbl.)	\$62.78
Natural gas (\$/Mcf)	\$ 7.22

### Wellhead value of production (2007, in thous. \$)

Crude oil	\$104,529
Natural gas	\$ 7,184
Total	\$ 111,713

### Average natural gas price (2007, \$/Mcf)

Residential consumers	\$10.49
Commercial consumers	\$ 8.81
Industrial consumers	\$ 8.32
Electric utilities	NA
City Gate	\$ 7.35

### Severance taxes paid (2007, in thous. \$)

\$3,153

### Top Producing Counties (2007 on a BOE basis)

County	% Production	
	State	US
Harding	98.41	0.04
Fall River	1.45	<0.01
Custer	0.14	<0.01

## 2007 Industry Statistics

### Number of wells drilled

	Exploratory	Development	Total
Oil	NA	35	35
Gas	2	NA	2
Dry	10	1	11
Total	12	36	48

### Total footage drilled

(thous. ft.)

	Exploratory	Development	Total
Oil	NA	190.5	190.5
Gas	3.9	NA	3.8
Dry	11.2	1.1	12.3
Total	15.1	191.6	206.7

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

New-field wildcats drilled	12
Footage (thous. ft.)	15.1

Average rotary rigs active	2
----------------------------	---

Permits	45
---------	----

### Statewide rank

	Crude Oil	Natural Gas
Wells drilled	28th	28th
Production	25th	28th
Reserves (2007)	NA	NA

Number of operators	15
---------------------	----

### Number of producing wells

(12/31/07)

Crude oil	163
Natural gas	64
Total	227

### Average production

Crude oil (thous. b/d)	5
NGL (thous. b/d)	0
Natural gas (MMcf/day)	1

### Total production

Crude oil (YTD bbls, in thous.)	1,653
Natural gas (YTD MMcf)	453

### Natural gas marketed production

(MMcf)	995
--------	-----

### Average output per producing well

Crude oil (bbls.)	10,142
Natural gas (Mcf)	7,083

Coalbed methane (YTD MMcf)	NA
----------------------------	----

Oil Wells	NA
Gas Wells	NA
Daily Average (MMcf) / Well	NA

Heavy oil (YTD bbls, in thous.)	NA
---------------------------------	----

Wells	NA
Av. bbls per day	NA
Av. bbls per well/d	NA

Source: For specific methodology and source details, please see pages 6 and 127.

## 2007 Latest Available Data

### Petroleum reserves

as of 12/31/07 (mill. bbls.)

	Crude Oil	NGL	Total
New reserves	NA	NA	NA
Production	NA	NA	NA
Net annual change	NA	NA	NA
Proved reserves	NA	NA	NA

### Natural gas reserves

as of 12/31/07 (Bcf)

	Associated Dissolved	Non- Associated	Dry Gas
New reserves	NA	NA	NA
Production	NA	NA	NA
Net annual change	NA	NA	NA
Proved reserves	NA	NA	NA

### Cost of drilling and equipping wells

	Cost/ft. (\$)	Cost/ well (\$)	Total Cost (thous. \$)
Oil	555	3,019,260	105,674
Gas	218	423,072	846
Dry	371	414,247	4,557

### Marginal oil wells

Producing marginal wells	70
Crude oil production in bbls. (thous.)	179
Crude oil production b/d (thous.)	0

### Marginal natural gas wells

as of 12/31/07

Producing marginal wells	63
Natural gas production (MMcf)	420

### Mineral Lease Royalties, Bonuses & Rent

Oil	\$1,189,852
Gas	\$ 98,476
Total Royalties	\$1,947,004

Horizontal wells drilled	34
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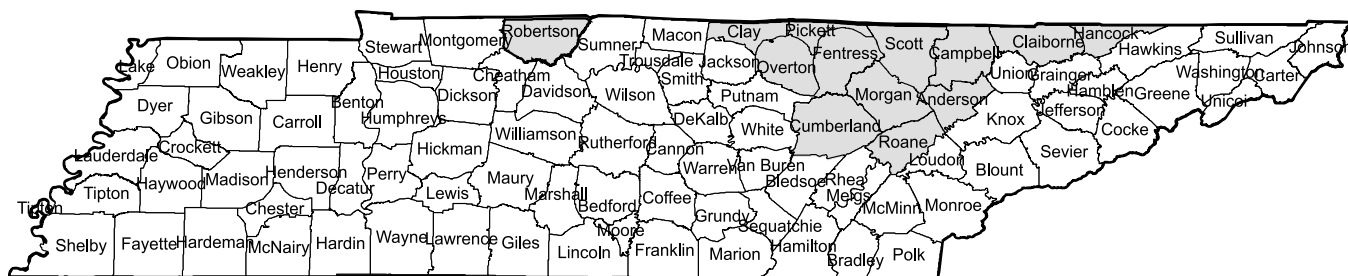
### Average number of employees

Oil and natural gas extraction	70
Refining	13
Transportation	281
Wholesale	1,269
Retail	5,811
Pipeline construction	55
Oilfield machinery	0
Total petroleum industry	7,499

Almost 100% of all oil and gas production in South Dakota is produced from the Buffalo Field. This field was discovered in 1954.



# TENNESSEE



○ Counties with oil and/or gas production

## Background Information

### Counties

Number of counties	95
With oil and/or gas production	13

### First year of production

Crude oil	1860
Natural gas	1889

### Year and amount of peak production

Crude oil — 1,132 thous. bbls.	1982
Natural gas — 5,022 MMcf	1984

### Deepest producing well (ft.)

Crude oil	NA
Natural gas	NA

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

1982	11,540
------	--------

### Cumulative number of total wells drilled as of 12/31/07 (excluding service wells)

Oil wells	2,810	23%
Gas wells	3,310	27%
Dry holes	5,923	50%
Total	12,043	100%

### Cumulative crude oil wellhead value

as of 12/31/07 (thous. \$)	\$441,991
----------------------------	-----------

### Cumulative production & new reserves as of 12/31/07)

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	NA	NA	NA	NA
Production	NA	NA	NA	NA

## Value of Oil and Gas

### Average wellhead price\* (2007)

Crude oil (\$/bbl.)	\$65.37
Natural gas (\$/Mcf)	\$ 6.63

### Wellhead value of production (2007, in thous. \$)

Crude oil	\$18,565
Natural gas	\$26,135
Total	\$44,700

### Average natural gas price (2007, \$/Mcf)

Residential consumers	\$13.42
Commercial consumers	\$11.99
Industrial consumers	\$ 9.32
Electric utilities	NA
City Gate	\$ 8.87

### Severance taxes paid (2007, in thous. \$)

### Top Producing Counties (2007 on a BOE basis)

County	% Production
State	US
NA	NA

## 2007 Industry Statistics

### Number of wells drilled

	Exploratory	Development	Total
Oil	1	9	10
Gas	38	16	54
Dry	NA	7	7
Total	39	32	71

### Total footage drilled

(thous. ft.)

	Exploratory	Development	Total
Oil	1.5	13.0	14.5
Gas	163.2	66.8	230.1
Dry	NA	12.6	12.6
Total	164.7	92.4	257.1

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

New-field wildcats drilled	27
Footage (thous. ft.)	113.3

Average rotary rigs active	5
----------------------------	---

Permits	415
---------	-----

### Statewide rank

	Crude Oil	Natural Gas
Wells drilled	25th	22nd
Production	29th	24th
Reserves (2007)	NA	NA

Number of operators	--
---------------------	----

### Number of producing wells

(12/31/07)

Crude oil	NA
Natural gas	NA
Total	NA

### Average production

Crude oil (thous. b/d)	NA
NGL (thous. b/d)	NA
Natural gas (MMcf/day)	NA

### Total production

Crude oil (YTD bbls, in thous.)	NA
Natural gas (YTD MMcf)	NA

### Natural gas marketed production

(MMcf)	3,942
--------	-------

### Average output per producing well

Crude oil (bbls.)	NA
Natural gas (Mcf)	NA

Coalbed methane (YTD MMcf)	NA
----------------------------	----

Oil Wells	NA
Gas Wells	NA
Daily Average (MMcf) / Well	NA

Heavy oil (YTD bbls, in thous.)	NA
---------------------------------	----

Wells	NA
Av. bbls per day	NA
Av. bbls per well/d	NA

Source: For specific methodology and source details, please see pages 6 and 127.

\* State Data.

## 2007 Latest Available Data

### Petroleum reserves

as of 12/31/07 (mill. bbls.)

	Crude Oil	NGL	Total
New reserves	NA	NA	NA
Production	NA	NA	NA
Net annual change	NA	NA	NA
Proved reserves	NA	NA	NA

### Natural gas reserves

as of 12/31/07 (Bcf)

	Associated Dissolved	Non- Associated	Dry Gas
New reserves	NA	NA	NA
Production	NA	NA	NA
Net annual change	NA	NA	NA
Proved reserves	NA	NA	NA

### Cost of drilling and equipping wells

	Cost/ft. (\$)	Cost/ well (\$)	Total Cost (thous. \$)
Oil	198	287,164	2,872
Gas	123	523,270	28,257
Dry	176	317,192	2,220

### Marginal oil wells

Producing marginal wells	NA
Crude oil production in bbls. (thous.)	NA
Crude oil production b/d (thous.)	NA

### Marginal natural gas wells

as of 12/31/07

Producing marginal wells	NA
Natural gas production (MMcf)	NA

### Mineral Lease Royalties, Bonuses & Rent

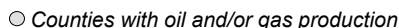
Oil	--
Gas	--
Total Royalties	--

Horizontal wells drilled	0
--------------------------	---

### Average number of employees

Oil and natural gas extraction	637
Refining	520
Transportation	2,251
Wholesale	3,524
Retail	23,841
Pipeline construction	696
Oilfield machinery	0
Total petroleum industry	31,469

*The Chattanooga Shale Field is actually an extension of the Appalachian Basin Devonian Shale, which is known to most as the Marcellus Shale. The Chattanooga Shale averages 80-200 feet in thickness.*



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## 2007 Industry Statistics

### Number of wells drilled

	Exploratory	Development	Total
Oil	75	4,246	4,321
Gas	147	8,562	8,709
Dry	386	976	1,362
Total	608	13,784	14,392

### Total footage drilled

(thous. ft.)

	Exploratory	Development	Total
Oil	471.4	24,936.9	25,408.2
Gas	1,378.7	83,380.0	84,758.8
Dry	2,964.0	5,718.6	8,682.6
Total	4,814.1	114,035.5	118,849.6

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

New-field wildcats drilled	309
Footage (thous. ft.)	2,368.6

Average rotary rigs active	834
----------------------------	-----

Permits	20,331
---------	--------

### Statewide rank

	Crude Oil	Natural Gas
Wells drilled	1st	1st
Production	2nd	1st
Reserves (2007)	1st	1st

Number of operators	4,745
---------------------	-------

### Number of producing wells

(12/31/07)

Crude oil	154,569
Natural gas	93,126
Total	247,695

### Average production

Crude oil (thous. b/d)	936
NGL (thous. b/d)	131.9
Natural gas (MMcf/day)	17,025

### Total production

Crude oil (YTD bbls, in thous.)	341,763
Natural gas (YTD MMcf)	6,214,058

### Natural gas marketed production

(MMcf)	6,091,724
--------	-----------

### Average output per producing well

Crude oil (bbls.)	2,211
Natural gas (Mcf)	66,727

Coalbed methane (YTD MMcf)	147
----------------------------	-----

Oil Wells	0
Gas Wells	9
Daily Average (MMcf) / Well	0

Heavy oil (YTD bbls, in thous.)	NA
---------------------------------	----

Wells	NA
Av. bbls per day	NA
Av. bbls per well/d	NA

Source: For specific methodology and source details, please see pages 6 and 127.

## 2007 Latest Available Data

### Petroleum reserves

as of 12/31/07 (mill. bbls.)

	Crude Oil	NGL	Total
New reserves	601	648	970
Production	350	325	675
Net annual change	251	323	574
Proved reserves	5,122	3,658	8,780

### Natural gas reserves

as of 12/31/07 (Bcf)

	Associated Dissolved	Non- Associated	Dry Gas
New reserves	1,063	16,120	16,518
Production	602	6,029	6,263
Net annual change	461	10,091	10,255
Proved reserves	7,530	68,827	72,091

### Cost of drilling and equipping wells

	Cost/ft. (\$)	Cost/ well (\$)	Total Cost (thous. \$)
Oil	304	1,789,941	7,734,334
Gas	472	4,589,357	39,968,708
Dry	295	1,878,932	2,559,106

### Marginal oil wells

Producing marginal wells	147,078
Crude oil production in bbls. (thous.)	142,022
Crude oil production b/d (thous.)	403

### Marginal natural gas wells

as of 12/31/07

Producing marginal wells	54,462
Natural gas production (MMcf)	623,976

### Mineral Lease Royalties, Bonuses & Rent

Oil	\$ 7,111,160
Gas	\$27,226,759
Total Royalties	\$44,385,789

Horizontal wells drilled	3,237
--------------------------	-------

### Average number of employees

Oil and natural gas extraction	201,991
Refining	22,017
Transportation	20,452
Wholesale	17,131
Retail	68,019
Pipeline construction	26,595
Oilfield machinery	38,213
Total petroleum industry	394,418

*In 2005–2007 horizontal drilling in the Barnett Shale extended south into Johnson, Hill and Bosque counties, with a 100 percent success rate on completed wells. An estimated 70% of U.S. gas shale production comes from the Barnett.*



○ Counties with oil and/or gas production

## Background Information

### Counties

Number of counties	29
With oil and/or gas production	11

### First year of production

Crude oil	1907
Natural gas	1886

### Year and amount of peak production

Crude oil — 42,301 thous. bbls.	1975
Natural gas — 376,409 MMcf	2007

### Deepest producing well (ft.)

Crude oil	20,600
Natural gas	17,000

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

1982	21,874
------	--------

### Cumulative number of total wells drilled as of 12/31/07 (excluding service wells)

Oil wells	7,140	38%
Gas wells	6,721	36%
Dry holes	4,964	26%
Total	18,825	100%

### Cumulative crude oil wellhead value

as of 12/31/07 (thous. \$)	\$19,657,759
----------------------------	--------------

### Cumulative production & new reserves

as of 12/31/07

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	1,518	1,804	3,322	13,092
Production	1,210	453	1,663	6,641

## Value of Oil and Gas

### Average wellhead price

(2007)

Crude oil (\$/bbl.)	\$ 62.48
Natural gas (\$/Mcf) *	\$ 3.86

### Wellhead value of production

(2007, in thous. \$)

Crude oil	\$1,219,610
Natural gas	\$1,452,939
Total	\$2,672,548

### Average natural gas price

(2007, \$/Mcf)

Residential consumers	\$ 9.44
Commercial consumers	\$ 8.03
Industrial consumers	\$ 6.35
Electric utilities	NA
City Gate	\$ 7.29

### Severance taxes paid

(2007, in thous. \$)	\$ 70,178
----------------------	-----------

### Top 10 Producing Counties

(2007 on a BOE basis)

County	% Production	
	State	US
Uintah	51.53	0.81
Carbon	20.80	0.25
Duchesne	10.30	0.13
San Juan	6.61	0.08
Emery	3.77	0.05
Summit	2.65	0.03
Sevier	2.41	0.02
Grand	1.59	<0.01
Garfield	0.25	<0.01
Daggett	0.10	<0.01

## 2007 Industry Statistics

### Number of wells drilled

	Exploratory	Development	Total
Oil	20	277	297
Gas	42	571	613
Dry	22	29	51
Total	84	877	961

### Total footage drilled

(thous. ft.)

	Exploratory	Development	Total
Oil	126.3	1,729.7	1,856.0
Gas	327.9	4,926.6	5,254.4
Dry	167.3	105.5	272.7
Total	621.4	6,761.8	7,383.2

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

New-field wildcats drilled	51
Footage (thous. ft.)	367.7

Average rotary rigs active	42
----------------------------	----

Permits	1,601
---------	-------

### Statewide rank

	Crude Oil	Natural Gas
Wells drilled	21st	18th
Production	14th	9th
Reserves (2007)	16th	13th

Number of operators	117
---------------------	-----

### Number of producing wells

(12/31/07)

Crude oil	3,107
Natural gas	5,257
Total	8,364

### Average production

Crude oil (thous. b/d)	46
NGL (thous. b/d)	7.0
Natural gas (MMcf/day)	995

### Total production

Crude oil (YTD bbls, in thous.)	16,957
Natural gas (YTD MMcf)	348,601

### Natural gas marketed production

(MMcf)	376,409
--------	---------

### Average output per producing well

Crude oil (bbls.)	5,458
Natural gas (Mcf)	66,312

Coalbed methane (YTD MMcf)	74,425
----------------------------	--------

Oil Wells	2
Gas Wells	866
Daily Average (MMcf) / Well	204

Heavy oil (YTD bbls, in thous.)	183
---------------------------------	-----

Wells	19
Av. bbls per day	0.5
Av. bbls per well/d	9,618

Source: For specific methodology and source details, please see pages 6 and 127.

\* State Data.

## 2007 Latest Available Data

### Petroleum reserves

as of 12/31/07 (mill. bbls.)

	Crude Oil	NGL	Total
New reserves	38	321	359
Production	17	68	85
Net annual change	21	253	274
Proved reserves	355	1,140	1,495

### Natural gas reserves

as of 12/31/07 (Bcf)

	Associated Dissolved	Non- Associated	Dry Gas
New reserves	80	1,541	1,610
Production	29	340	365
Net annual change	51	1,201	1,245
Proved reserves	368	6,095	6,391

### Cost of drilling and equipping wells

	Cost/ft. (\$)	Cost/ well (\$)	Total Cost (thous. \$)
Oil	274	1,711,200	508,226
Gas	562	4,817,178	2,952,930
Dry	356	1,903,445	97,076

### Marginal oil wells

Producing marginal wells	2,114
Crude oil production in bbls. (thous.)	4,805
Crude oil production b/d (thous.)	13

### Marginal natural gas wells

as of 12/31/07

Producing marginal wells	2,657
Natural gas production (MMcf)	36,895

### Mineral Lease Royalties, Bonuses & Rent

Oil	\$ 111,638,417
Gas	\$155,572,707
Total Royalties	\$345,191,313

Horizontal wells drilled	9
--------------------------	---

### Average number of employees

Oil and natural gas extraction	5,793
Refining	922
Transportation	1,182
Wholesale	957
Retail	10,067
Pipeline construction	1,042
Oilfield machinery	297
Total petroleum industry	20,260

Over 420 wells were completed in the Natural Buttes Field in 2007. This field was discovered in the late 1960s and continues to be the top producing field in Utah.

# VIRGINIA



## Background Information

### Counties

Number of counties	96
With oil and/or gas production	7

### First year of production

Crude oil	1943
Natural gas	1931

### Year and amount of peak production

Crude oil — 65 thous. bbls.	1983
Natural gas — 112,057 MMcf	2007

### Deepest producing well (ft.)

Crude oil	NA
Natural gas	10,134

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

1977	17,003
------	--------

### Cumulative number of total wells drilled as of 12/31/07 (excluding service wells)

Oil wells	54	1%
Gas wells	5,578	93%
Dry holes	337	6%
Total	5,969	100%

### Cumulative crude oil wellhead value

as of 12/31/07 (thous. \$)	\$11,097
----------------------------	----------

### Cumulative production & new reserves

as of 12/31/07

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	NA	NA	NA	3,520
Production	NA	NA	NA	1,299

## Value of Oil and Gas

### Average wellhead price

(2007)

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

### Wellhead value of production

(2007, in thous. \$)

Crude oil	NA
Natural gas	NA
Total	NA

### Average natural gas price

(2007, \$/Mcf)

Residential consumers	\$15.42
Commercial consumers	\$11.99
Industrial consumers	\$9.33
Electric utilities	\$8.42
City Gate	\$9.27

### Severance taxes paid

(2007, in thous. \$)

--

### Top Producing Counties

(2007 on a BOE basis)

County	% Production	
	State	US
Buchanan	53.72	0.21
Dickerson	24.43	0.07
Russell	7.80	0.02
Wise	7.06	0.02
Tazewell	6.72	0.02
Lee	0.20	<0.01
Scott	0.08	<0.01

## 2007 Industry Statistics

### Number of wells drilled

	Exploratory	Development	Total
Oil	NA	NA	NA
Gas	51	654	705
Dry	NA	NA	NA
Total	51	654	705

### Total footage drilled

(thous. ft.)

	Exploratory	Development	Total
Oil	NA	NA	NA
Gas	287.8	1,689.8	1,977.6
Dry	NA	NA	NA
Total	287.8	1,689.8	1,977.6

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

New-field wildcats drilled	27
Footage (thous. ft.)	152.6

Average rotary rigs active	3
----------------------------	---

Permits	840
---------	-----

### Statewide rank

	Crude Oil	Natural Gas
Wells drilled	32nd	20th
Production	32nd	18th
Reserves (2007)	21st	17th

Number of operators*	21
----------------------	----

### Number of producing wells

(12/31/07)

Crude oil	0
Natural gas	5,748
Total	5,748

### Average production

Crude oil (thous. b/d)	0
NGL (thous. b/d)	0
Natural gas (MMcf/day)	307

### Total production

Crude oil (YTD bbls, in thous.)	0
Natural gas (YTD MMcf)	112,224

### Natural gas marketed production

(MMcf)	112,057
--------	---------

### Average output per producing well

Crude oil (bbls.)	NA
Natural gas (Mcf)	19,524

Coalbed methane (YTD MMcf)	NA
----------------------------	----

Oil Wells	NA
Gas Wells	NA
Daily Average (MMcf) / Well	NA

Heavy oil (YTD bbls, in thous.)	NA
---------------------------------	----

Wells	NA
Av. bbls per day	NA
Av. bbls per well/d	NA

Source: For specific methodology and source details, please see pages 6 and 127.

\* State Data.

## 2007 Latest Available Data

### Petroleum reserves

as of 12/31/07 (mill. bbls.)

	Crude Oil	NGL	Total
New reserves	NA	NA	NA
Production	NA	NA	NA
Net annual change	NA	NA	NA
Proved reserves	NA	NA	NA

### Natural gas reserves

as of 12/31/07 (Bcf)

	Associated Dissolved	Non- Associated	Dry Gas
New reserves	0	336	336
Production	0	109	109
Net annual change	0	227	227
Proved reserves	0	2,529	2,529

### Cost of drilling and equipping wells

	Cost/ft. (\$)	Cost/ well (\$)	Total Cost (thous. \$)
Oil	NA	NA	NA
Gas	142	399,046	281,327
Dry	NA	NA	NA

### Marginal oil wells

Producing marginal wells	NA
Crude oil production in bbls. (thous.)	NA
Crude oil production b/d (thous.)	NA

### Marginal natural gas wells

as of 12/31/07

Producing marginal wells	4,802
Natural gas production (MMcf)	61,584

### Mineral Lease Royalties, Bonuses & Rent

Oil	--
Gas	\$373,082
Total Royalties	\$471,348

Horizontal wells drilled	0
--------------------------	---

### Average number of employees

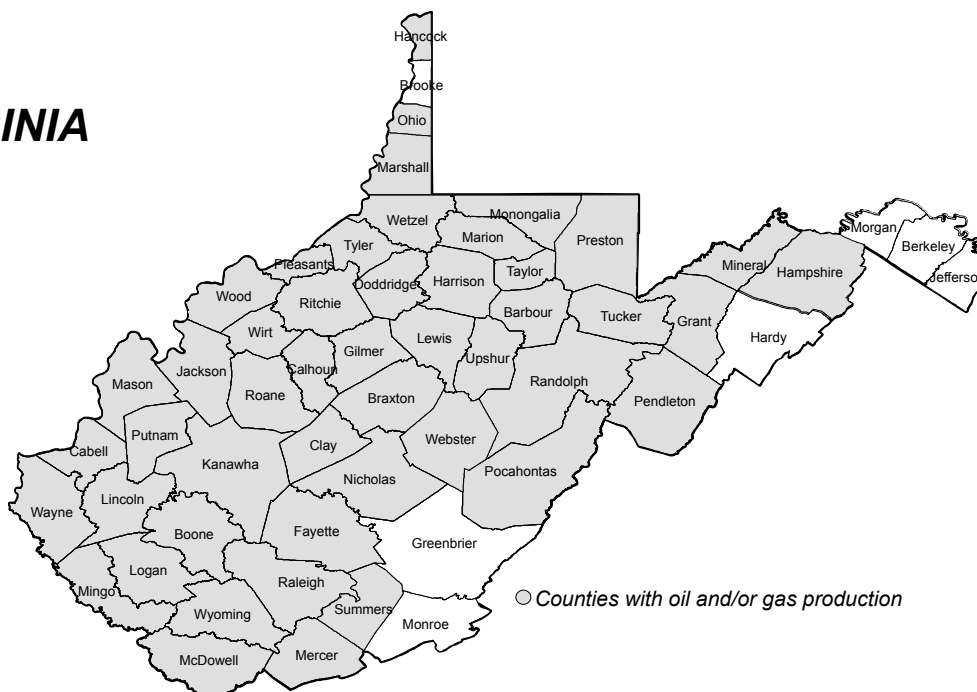
Oil and natural gas extraction	1,579
Refining	914
Transportation	1,947
Wholesale	4,889
Retail	33,892
Pipeline construction	1,616
Oilfield machinery	0
Total petroleum industry	44,837

*Discovered in the late 1970s, Keen Mountain*

Field is the top producing gas field in Virginia. Almost 50% of the gas produced in the state comes from this field.



# WEST VIRGINIA



## Background Information

### Counties

Number of counties	55
With oil and/or gas production	48

### First year of production

Crude oil	1860
Natural gas	1885

### Year and amount of peak production

Crude oil — 16,196 thous. bbls.	1900
Natural gas — 264,139 MMcf	2000

### Deepest producing well (ft.)

Crude oil	8,381
Natural gas	17,111

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

1974	20,222
------	--------

### Cumulative number of total wells drilled as of 12/31/07 (excluding service wells)

Oil wells	14,525	17%
Gas wells	60,932	73%
Dry holes	7,615	10%
Total	83,073	100%

### Cumulative crude oil wellhead value as of 12/31/07 (thous. \$)

\$2,910,050

### Cumulative production & new reserves as of 12/31/07

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	614	502	1,116	24,858
Production	616	417	1,033	20,283

## Value of Oil and Gas

### Average wellhead price (2007)

Crude oil (\$/bbl.)	\$ 67.20
Natural gas (\$/Mcf)	\$ 6.86

### Wellhead value of production (2007, in thous. \$)

Crude oil	\$ 105,883
Natural gas	\$1,585,922
Total	\$1,691,805

### Average natural gas price (2007, \$/Mcf)

Residential consumers	\$14.59
Commercial consumers	\$13.37
Industrial consumers	\$ 8.51
Electric utilities	NA
City Gate	\$ 8.62

### Severance taxes paid (2007, in thous. \$)

\$80,294

### Top 10 Producing Counties (2007 on a BOE basis)

County	% Production	
	State	US
Wyoming	11.44	0.10
McDowell	8.59	0.06
Kanawha	6.70	0.04
Lewis	6.09	0.04
Doddridge	6.02	0.04
Logan	5.93	0.04
Harrison	5.24	0.03
Mingo	4.77	0.03
Boone	3.99	0.03
Ritchie	3.99	0.03

## 2007 Industry Statistics

### Number of wells drilled

	Exploratory	Development	Total
Oil	1	15	16
Gas	258	1,531	1,789
Dry	3	16	19
Total	262	1,562	1,824

### Total footage drilled

(thous. ft.)

	Exploratory	Development	Total
Oil	2.2	33.4	35.6
Gas	1,233.8	6,737.2	7,971.0
Dry	7.9	29.1	37.0
Total	1,243.8	6,799.8	8,043.6

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

New-field wildcats drilled	48
Footage (thous. ft.)	232.2

Average rotary rigs active	32
----------------------------	----

Permits	2,815
---------	-------

### Statewide rank

	Crude Oil	Natural Gas
Wells drilled	16th	3rd
Production	26th	15th
Reserves (2007)	22nd	11th

Number of operators	595
---------------------	-----

### Number of producing wells

(12/31/07)

Crude oil	2,613
Natural gas	47,476
Total	50,089

### Average production

Crude oil (thous. b/d)	3
NGL (thous. b/d)	2.6
Natural gas (MMcf/day)	641

### Total production

Crude oil (YTD bbls, in thous.)	1,030
Natural gas (YTD MMcf)	234,103

### Natural gas marketed production

(MMcf)	231,184
--------	---------

### Average output per producing well

Crude oil (bbls.)	394
Natural gas (Mcf)	4,931

Coalbed methane (YTD MMcf)	1,057
----------------------------	-------

Oil Wells	0
Gas Wells	98
Daily Average (MMcf) / Well	3

Heavy oil (YTD bbls, in thous.)	NA
---------------------------------	----

Wells	NA
Av. bbls per day	NA
Av. bbls per well/d	NA

Source: For specific methodology and source details, please see pages 6 and 127.

## 2007 Latest Available Data

### Petroleum reserves

as of 12/31/07 (mill. bbls.)

	Crude Oil	NGL	Total
New reserves	7	10	17
Production	2	5	7
Net annual change	5	5	10
Proved reserves	28	115	143

### Natural gas reserves

as of 12/31/07 (Bcf)

	Associated Dissolved	Non- Associated	Dry Gas
New reserves	1	424	412
Production	1	197	192
Net annual change	0	227	220
Proved reserves	16	4,865	4,729

### Cost of drilling and equipping wells

	Cost/ft. (\$)	Cost/ well (\$)	Total Cost (thous. \$)
Oil	145	323,058	5,169
Gas	107	476,574	852,591
Dry	186	362,918	6,895

### Marginal oil wells

Producing marginal wells	1,975
Crude oil production in bbls. (thous.)	581
Crude oil production b/d (thous.)	2

### Marginal natural gas wells

as of 12/31/07

Producing marginal wells	46,507
Natural gas production (MMcf)	189,735

### Mineral Lease Royalties, Bonuses & Rent

Oil	\$ 606
Gas	\$ 709,267
Total Royalties	\$ 925,747

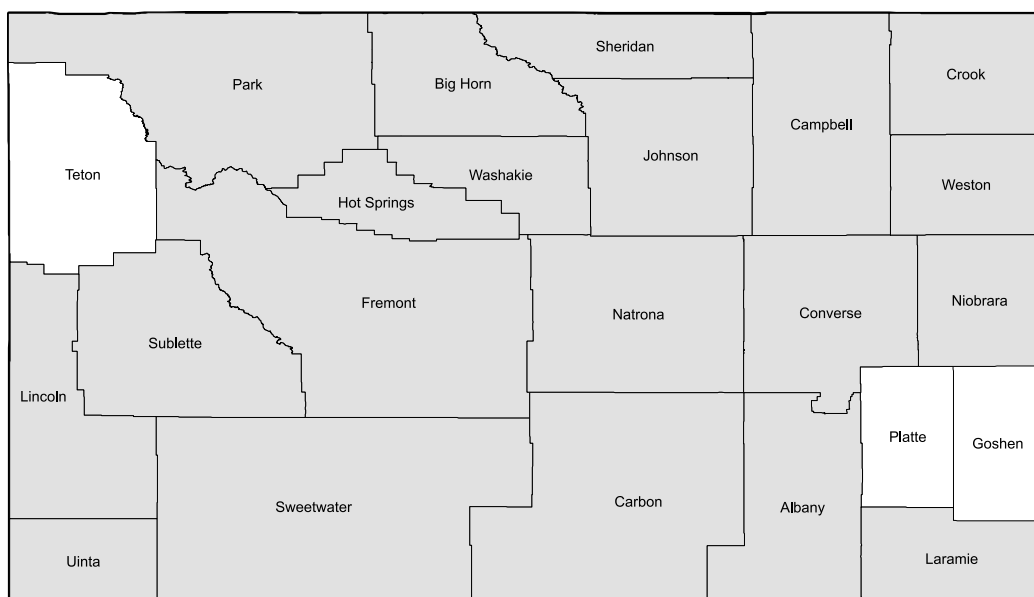
Horizontal wells drilled	21
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### Average number of employees

Oil and natural gas extraction	5,193
Refining	887
Transportation	2,337
Wholesale	1,015
Retail	9,254
Pipeline construction	965
Oilfield machinery	0
Total petroleum industry	19,651

*Discovered before the turn of the century, the Jacksonburg-Stringtown Field in West Virginia is still the top producing oil field in the state.*

# WYOMING



○ Counties with oil and/or gas production

## Background Information

### Counties

Number of counties	23
With oil and/or gas production	20

### First year of production

Crude oil	1894
Natural gas	1889

### Year and amount of peak production

Crude oil — 160,345 thous. bbls.	1970
Natural gas — 1,948,640 MMcf	2005

### Deepest producing well (ft.)

Crude oil	17,750
Natural gas	25,175

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

2001	25,830
------	--------

### Cumulative number of total wells drilled as of 12/31/07 (excluding service wells)

Oil wells	33,634	32%
Gas wells	41,677	39%
Dry holes	30,061	29%
Total	105,372	100%

### Cumulative crude oil wellhead value as of 12/31/07 (thous. \$)

\$73,242,951

### Cumulative production & new reserves as of 12/31/07

	Crude Oil	NGL (mill. bbls.)	Total	Natural Gas (Bcf)
Reserves	7,324	2,277	9,601	61,032
Production	6,775	1,331	8,106	33,458

## Value of Oil and Gas

### Average wellhead price (2007)

Crude oil (\$/bbl.)	\$58.34
Natural gas (\$/Mcf)	\$ 4.65

### Wellhead value of production (2007, in thous. \$)

Crude oil	\$ 3,157,944
Natural gas	\$ 8,942,992
Total	\$12,100,936

### Average natural gas price (2007, \$/Mcf)

Residential consumers	\$ 8.84
Commercial consumers	\$ 7.89
Industrial consumers	\$ 6.61
Electric utilities	NA
City Gate	\$ 5.90

### Severance taxes paid (2007, in thous. \$)

\$595,031

### Top 10 Producing Counties (2007 on a BOE basis)

County	% Production State	US
Sublette	42.99	3.51
Campbell	9.45	0.60
Sweetwater	9.02	0.57
Johnson	8.83	0.56
Fremont	8.07	0.51
Carbon	4.75	0.30
Lincoln	3.80	0.24
Uinta	2.79	0.18
Sheridan	2.62	0.17
Park	2.46	0.16

## 2007 Industry Statistics

### Number of wells drilled

	Exploratory	Development	Total
Oil	13	161	174
Gas	30	2,743	2,773
Dry	41	73	114
Total	84	2,977	3,061

### Total footage drilled

(thous. ft.)

	Exploratory	Development	Total
Oil	107.8	786.5	894.3
Gas	322.0	13,601.4	13,923.4
Dry	284.4	283.6	568.1
Total	714.3	14,671.5	15,385.8

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

New-field wildcats drilled	59
Footage (thous. ft.)	469.0

Average rotary rigs active	74
----------------------------	----

Permits	4,467
---------	-------

### Statewide rank

	Crude Oil	Natural gas
Wells drilled	9th	6th
Production	8th	3rd
Reserves (2007)	7th	6th

Number of operators	448
---------------------	-----

### Number of producing wells

(12/31/07)

Crude oil	12,094
Natural gas	31,747
Total	43,841

### Average production

Crude oil (thous. b/d)	115
NGL (thous. b/d)	33.5
Natural gas (MMcf/day)	5,731

### Total production

Crude oil (YTD bbls, in thous.)	41,992
Natural gas (YTD MMcf)	2,091,822

### Natural gas marketed production

(MMcf) 1,923,224

### Average output per producing well

Crude oil (bbls.)	3,472
Natural gas (Mcf)	65,890

### Coalbed methane (YTD MMcf)

Oil Wells	4
Gas Wells	20,749
Daily Average (MMcf) / Well	1,207

### Heavy oil (YTD bbls, in thous.)

Wells	1,950
Av. bbls per day	28.8
Av. bbls per well/d	5,391

Source: For specific methodology and source details, please see pages 6 and 127.

## 2007 Latest Available Data

### Petroleum reserves

as of 12/31/07 (mill. bbls.)

	Crude Oil	NGL	Total
New reserves	27	321	348
Production	43	68	111
Net annual change	-16	253	237
Proved reserves	690	1,140	1,830

### Natural gas reserves

as of 12/31/07 (Bcf)

	Associated Dissolved	Non- Associated	Dry Gas
New reserves	87	8,243	7,986
Production	69	1,828	1,825
Net annual change	18	6,415	6,161
Proved reserves	365	30,531	29,710

### Cost of drilling and equipping wells

	Cost/ft. (\$)	Cost/ well (\$)	Total Cost (thous. \$)
Oil	474	2,436,084	423,879
Gas	716	3,594,828	9,968,457
Dry	538	2,681,136	305,649

### Marginal oil wells

Producing marginal wells	9,767
Crude oil production in bbls. (thous.)	13,361
Crude oil production b/d (thous.)	37

### Marginal natural gas wells

as of 12/31/07

Producing marginal wells	19,592
Natural gas production (MMcf)	195,370

### Mineral Lease Royalties, Bonuses & Rent

Oil	\$ 269,051,503
Gas	\$ 777,702,219
Total Royalties	\$ 1,862,789,851

Horizontal wells drilled	47
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### Average number of employees

Oil and natural gas extraction	17,837
Refining	1,063
Transportation	961
Wholesale	774
Retail	4,143
Pipeline construction	5,046
Oilfield machinery	204
Total petroleum industry	30,028

20% of the gas production in Wyoming is produced in the Power River Basin Coal Bed Field. This region supplies about 40 percent of the coal in the United States.

# ROTARY RIGS OPERATING

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Alabama	6	6	4	5	3	3	3	4	5	5
Alaska	12	5	8	13	11	10	10	9	8	8
Arizona	0	0	0	0	0	0	0	0	0	0
Arkansas	6	3	4	2	1	2	6	9	24	45
California	28	19	24	36	23	22	24	27	33	35
Colorado	13	13	18	32	28	39	54	74	89	107
Florida	0	0	0	0	0	1	1	2	0	0
Illinois	0	0	0	0	0	0	0	0	0	0
Indiana	0	0	0	0	0	0	0	0	0	0
Iowa	0	0	0	0	0	0	0	0	0	2
Kansas	13	7	22	23	8	9	7	7	10	14
Kentucky	3	6	5	6	5	4	5	5	7	9
Louisiana	187	141	194	214	163	157	167	182	188	177
Maryland	0	0	0	0	0	0	0	0	0	1
Michigan	5	2	3	1	1	3	3	3	2	2
Mississippi	14	7	11	14	8	8	10	10	10	14
Montana	9	4	7	10	8	14	20	24	22	17
Nebraska	1	0	1	0	0	0	1	0	0	0
Nevada	0	0	0	0	0	1	2	2	1	2
New Mexico	45	36	68	68	42	65	67	83	94	78
New York	2	3	3	5	4	3	5	4	6	6
North Dakota	11	6	13	14	10	14	15	21	32	39
Ohio	10	11	9	10	9	8	7	9	8	13
Oklahoma	85	62	99	130	91	129	159	152	179	188
Oregon	0	0	0	0	0	0	0	0	0	0
Pennsylvania	11	8	9	11	11	10	9	13	16	16
South Dakota	0	1	0	1	0	0	1	2	1	2
Tennessee	1	0	0	1	0	0	0	0	1	5
Texas	303	227	343	462	338	449	506	614	746	834
Utah	12	9	16	21	13	14	22	28	40	42
Virginia	2	5	2	2	2	1	1	2	1	3
Washington	0	0	0	1	0	0	0	0	1	0
West Virginia	14	14	14	18	13	16	15	17	27	32
Wyoming	38	32	41	55	40	54	74	78	99	74
TOTAL U.S.	827	625	918	1,156	830	1,032	1,192	1,381	1,649	1,769
ONSHORE	703	517	779	1,002	716	923	1,095	1,287	1,561	1,696
OFFSHORE	124	107	139	154	114	109	97	94	88	73

Source: Baker-Hughes.

Note: Averages may not add up to total due to rounding.

# NEW-FIELD WILDCAT WELLS DRILLED

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Alabama	18	19	17	19	16	17	22	17	24	35
Alaska	12	5	8	10	10	9	8	0	5	8
Arizona	7	0	0	0	10	9	8	4	1	1
Arkansas	15	13	13	18	10	10	20	13	55	317
California	22	32	42	42	29	26	31	30	13	11
Colorado	60	49	42	71	40	49	64	136	101	125
Florida	0	0	0	0	0	0	0	2	0	0
Georgia	1	0	0	1	0	0	0	0	0	0
Illinois	23	13	20	36	17	33	31	33	31	24
Indiana	9	7	5	19	10	17	20	20	32	15
Iowa	0	0	0	1	0	0	0	0	0	0
Kansas	120	82	147	215	155	160	180	227	277	261
Kentucky	18	16	26	87	84	123	151	124	239	176
Louisiana	80	76	83	63	74	61	59	59	51	50
Maryland	0	0	0	0	0	0	0	0	0	0
Michigan	40	22	20	19	24	19	23	17	28	23
Mississippi	29	29	25	28	38	33	29	33	30	40
Missouri	1	3	1	3	2	0	0	0	0	0
Montana	67	45	56	90	95	121	159	168	138	107
Nebraska	14	9	15	12	14	15	16	18	20	21
Nevada	6	1	3	3	2	3	3	5	1	2
New Mexico	40	38	44	58	32	61	77	45	65	45
New York	9	16	22	39	35	25	47	2	13	28
North Carolina	2	0	0	0	0	0	0	0	0	0
North Dakota	28	16	19	19	9	4	25	45	104	105
Ohio	21	1	0	5	6	4	2	13	16	33
Oklahoma	63	57	65	102	69	97	102	110	181	262
Oregon	1	0	0	0	0	0	0	0	0	0
Pennsylvania	2	5	4	23	15	37	67	142	217	338
South Dakota	5	1	1	1	6	5	1	6	4	12
Tennessee	4	8	9	11	23	42	25	33	79	27
Texas	581	453	517	432	345	434	476	464	387	309
Utah	23	15	6	20	30	12	22	32	53	51
Virginia	0	1	7	4	8	7	1	2	6	27
Washington	1	1	1	1	0	0	0	0	0	2
West Virginia	3	5	10	32	29	18	28	23	36	48
Wyoming	107	89	77	78	74	85	86	80	68	59
Federal Offshore	54	66	106	106	70	83	81	158	146	132
<b>TOTAL U.S.</b>	<b>1,487</b>	<b>1,193</b>	<b>1,411</b>	<b>1,668</b>	<b>1,372</b>	<b>1,610</b>	<b>1,857</b>	<b>1,936</b>	<b>2,275</b>	<b>2,562</b>

Source: IHS.

Note: Data include oil wells, gas wells, and dry holes and may not total due to Federal Offshore data duplication.

# EXPLORATORY *WELLS* DRILLED

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Alabama	19	20	17	22	17	23	36	27	33	49
Alaska	13	5	8	14	17	11	13	18	11	15
Arizona	7	0	1	0	1	0	1	4	1	1
Arkansas	15	13	14	23	10	12	26	35	78	360
California	66	67	80	90	64	50	60	62	30	24
Colorado	135	104	88	137	57	82	100	204	158	171
Florida	0	0	0	0	0	0	0	2	0	0
Georgia	1	0	0	1	0	0	0	0	0	0
Illinois	75	37	51	47	33	46	47	45	67	84
Indiana	33	20	10	19	12	37	24	35	45	33
Iowa	0	0	0	1	0	0	0	0	0	0
Kansas	190	148	251	400	281	292	345	416	452	479
Kentucky	63	46	58	121	125	173	269	269	489	419
Louisiana	92	85	87	64	83	72	73	70	64	65
Maryland	0	0	0	0	0	0	0	0	0	0
Michigan	44	30	23	25	30	23	27	23	34	32
Mississippi	30	31	33	33	43	41	33	44	40	52
Missouri	1	3	1	3	2	0	0	0	0	0
Montana	119	65	100	177	156	187	248	287	255	190
Nebraska	18	17	30	19	17	22	18	29	31	33
Nevada	7	1	3	4	2	3	3	5	1	2
New Mexico	128	104	95	115	75	98	103	94	114	75
New York	11	18	26	46	38	32	59	27	15	62
North Carolina	2	0	0	0	0	0	0	0	0	0
North Dakota	88	41	51	52	22	23	53	73	165	241
Ohio	55	25	26	35	27	22	24	38	47	122
Oklahoma	86	67	103	188	109	209	251	276	324	596
Oregon	2	5	0	0	0	0	0	0	0	0
Pennsylvania	7	13	10	31	29	70	206	436	649	959
South Dakota	7	2	1	2	6	5	4	7	4	12
Tennessee	11	12	21	16	26	54	56	71	117	39
Texas	1,033	789	848	1,000	706	786	762	732	688	608
Utah	45	23	19	72	41	35	47	68	125	84
Virginia	1	1	9	5	14	10	2	6	14	51
Washington	1	1	0	1	0	0	0	0	0	2
West Virginia	11	18	28	76	88	41	144	196	207	262
Wyoming	180	143	142	178	151	143	126	130	110	84
Federal Offshore	74	78	106	106	70	83	81	166	155	140
<b>TOTAL U.S.</b>	<b>2,670</b>	<b>2,032</b>	<b>2,340</b>	<b>3,123</b>	<b>2,352</b>	<b>2,685</b>	<b>3,241</b>	<b>3,729</b>	<b>4,368</b>	<b>5,206</b>

Source: IHS.

Note: Data include oil wells, gas wells, and dry holes and may not total due to Federal Offshore data duplication.

# DEVELOPMENT WELLS DRILLED

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>Alabama</b>	168	205	152	346	246	371	405	416	407	505
<b>Alaska</b>	200	94	128	164	179	165	193	155	121	133
<b>Arizona</b>	0	1	0	0	0	0	0	0	0	1
<b>Arkansas</b>	177	136	155	227	144	216	278	299	417	470
<b>California</b>	2,134	1,478	2,113	2,181	1,925	1,928	2,161	2,234	2,464	2,343
<b>Colorado</b>	720	636	955	1,392	1,332	1,511	1,892	2,506	2,845	3,269
<b>Florida</b>	1	0	4	0	1	0	0	1	0	0
<b>Illinois</b>	339	213	328	367	289	308	277	379	411	353
<b>Indiana</b>	55	34	53	117	81	145	125	128	72	80
<b>Kansas</b>	728	497	911	1,099	902	1,339	1,542	1,867	2,709	2,770
<b>Kentucky</b>	587	601	729	865	891	752	573	680	805	850
<b>Louisiana</b>	1,098	757	1,031	1,217	790	1,003	1,188	1,381	1,569	1,565
<b>Maryland</b>	0	1	0	0	0	0	0	0	0	0
<b>Michigan</b>	540	298	374	414	337	353	403	505	524	450
<b>Mississippi</b>	159	86	192	242	168	240	237	255	253	280
<b>Missouri</b>	1	5	14	6	0	1	0	0	0	0
<b>Montana</b>	242	383	418	406	388	644	504	682	863	672
<b>Nebraska</b>	14	3	11	13	14	16	32	46	34	132
<b>Nevada</b>	4	1	1	3	2	0	0	0	0	0
<b>New Mexico</b>	1,097	935	1,461	1,574	1,200	1,526	1,686	1,812	1,914	1,763
<b>New York</b>	54	69	70	77	54	46	77	133	227	288
<b>North Dakota</b>	145	42	121	158	154	199	168	227	322	278
<b>Ohio</b>	517	495	547	690	493	493	525	539	637	684
<b>Oklahoma</b>	1,847	1,582	2,176	2,982	2,351	2,783	2,884	3,248	3,671	2,992
<b>Oregon</b>	5	5	0	0	0	0	0	0	0	0
<b>Pennsylvania</b>	1,502	1,362	1,591	2,232	2,183	2,505	2,290	2,908	3,611	3,210
<b>South Dakota</b>	3	4	10	9	6	3	8	34	21	36
<b>Tennessee</b>	98	109	165	103	81	198	146	163	168	32
<b>Texas</b>	7,012	4,697	6,931	8,052	6,534	8,592	9,522	10,800	12,272	13,784
<b>Utah</b>	455	237	414	549	383	381	554	709	880	877
<b>Virginia</b>	221	278	245	304	291	358	361	318	531	654
<b>Washington</b>	0	0	0	0	0	0	2	0	0	0
<b>West Virginia</b>	764	670	653	887	870	974	1,081	1,212	1,584	1,562
<b>Wyoming</b>	1,075	2,438	4,744	5,331	3,045	2,768	3,717	4,330	4,024	2,977
<b>Federal Offshore</b>	893	794	939	952	612	630	615	551	483	415
<b>TOTAL U.S.</b>	<b>22,076</b>	<b>18,506</b>	<b>26,843</b>	<b>32,184</b>	<b>25,454</b>	<b>29,923</b>	<b>32,945</b>	<b>37,967</b>	<b>43,805</b>	<b>43,010</b>

Source: IHS.

Note: Data include oil wells, gas wells, and dry holes and may not total due to Federal Offshore data duplication.



# TOTAL WELLS DRILLED

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>Alabama</b>	187	225	169	368	263	394	441	443	440	554
<b>Alaska</b>	213	99	136	178	196	176	206	173	132	148
<b>Arizona</b>	7	1	1	0	1	0	1	4	1	2
<b>Arkansas</b>	192	149	169	250	154	228	304	334	495	830
<b>California</b>	2,200	1,545	2,193	2,271	1,989	1,978	2,221	2,296	2,494	2,367
<b>Colorado</b>	855	740	1,043	1,529	1,389	1,593	1,992	2,710	3,003	3,440
<b>Florida</b>	1	0	4	0	1	0	0	3	0	0
<b>Georgia</b>	1	0	0	1	0	0	0	0	0	0
<b>Illinois</b>	414	250	379	414	322	354	324	424	478	437
<b>Indiana</b>	88	54	63	136	93	182	149	163	117	113
<b>Iowa</b>	0	0	0	1	0	0	0	0	0	0
<b>Kansas</b>	918	645	1,162	1,499	1,183	1,631	1,887	2,283	3,161	3,249
<b>Kentucky</b>	650	647	787	986	1,016	925	842	949	1,294	1,269
<b>Louisiana</b>	1,190	842	1,118	1,281	873	1,075	1,261	1,451	1,633	1,630
<b>Maryland</b>	0	1	0	0	0	0	0	0	0	0
<b>Michigan</b>	584	328	397	439	367	376	430	528	558	482
<b>Mississippi</b>	189	117	225	275	211	281	270	299	293	332
<b>Missouri</b>	2	8	15	9	2	1	0	0	0	0
<b>Montana</b>	361	448	518	583	544	831	752	969	1,118	862
<b>Nebraska</b>	32	20	41	32	31	38	50	75	65	165
<b>Nevada</b>	11	2	4	7	4	3	3	5	1	2
<b>New Mexico</b>	1,225	1,039	1,556	1,689	1,275	1,624	1,789	1,906	2,028	1,838
<b>New York</b>	65	87	96	123	92	78	136	160	242	350
<b>North Carolina</b>	2	0	0	0	0	0	0	0	0	0
<b>North Dakota</b>	233	83	172	210	176	222	221	300	487	519
<b>Ohio</b>	572	520	573	725	520	515	549	577	684	806
<b>Oklahoma</b>	1,933	1,649	2,279	3,170	2,460	2,992	3,135	3,524	3,995	3,588
<b>Oregon</b>	7	10	0	0	0	0	0	0	0	0
<b>Pennsylvania</b>	1,509	1,375	1,601	2,263	2,212	2,575	2,496	3,344	4,260	4,169
<b>South Dakota</b>	10	6	11	11	12	8	12	41	25	48
<b>Tennessee</b>	109	121	186	119	107	252	202	234	285	71
<b>Texas</b>	8,045	5,486	7,779	9,052	7,240	9,378	10,284	11,532	13,409	14,392
<b>Utah</b>	500	260	433	621	424	416	601	777	1,005	961
<b>Virginia</b>	222	279	254	309	305	368	363	324	545	705
<b>Washington</b>	1	1	0	1	0	0	2	0	0	2
<b>West Virginia</b>	775	688	681	963	958	1,015	1,225	1,408	1,791	1,824
<b>Wyoming</b>	1,255	2,581	4,886	5,509	3,196	2,911	3,843	4,460	4,134	3,061
<b>Federal Offshore</b>	1,078	971	1,135	1,158	758	807	786	716	638	555
<b>TOTAL U.S.</b>	<b>25,636</b>	<b>21,277</b>	<b>30,066</b>	<b>36,182</b>	<b>28,374</b>	<b>33,227</b>	<b>36,777</b>	<b>41,696</b>	<b>48,173</b>	<b>48,216</b>

Source: IHS.

Note: Data include oil wells, gas wells, and dry holes and may not total due to Federal Offshore data duplication.

TOTAL WELLS DRILLED

# PRODUCING CRUDE WELLS

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>Alabama</b>	549	521	502	494	481	485	502	557	493	488
<b>Alaska</b>	2,349	2,256	2,243	2,304	2,310	2,283	2,384	2,505	2,465	2,402
<b>Arizona</b>	29	30	28	27	24	24	21	23	25	22
<b>Arkansas</b>	2,352	2,167	2,244	5,498	4,385	2,718	2,143	2,138	2,505	2,487
<b>California</b>	46,267	45,293	46,654	47,148	46,811	47,060	47,666	48,239	49,705	50,591
<b>Colorado</b>	5,370	5,305	5,400	5,322	5,272	5,133	5,140	5,088	5,049	4,999
<b>Florida</b>	99	88	79	73	72	96	67	76	65	64
<b>Kansas</b>	45,683	42,539	42,358	41,774	41,629	41,261	40,167	40,024	40,349	40,782
<b>Louisiana</b>	19,290	18,300	19,604	18,530	17,996	17,991	17,569	17,463	17,999	17,751
<b>Michigan</b>	2,519	2,631	3,688	3,845	3,672	3,790	3,761	3,887	3,847	3,875
<b>Mississippi</b>	1,796	1,715	1,742	1,768	1,616	1,664	1,685	1,647	1,788	1,937
<b>Montana</b>	3,735	3,617	3,741	4,409	3,662	3,713	3,918	4,052	4,272	4,873
<b>Nebraska</b>	1,424	1,269	1,270	1,250	1,224	1,222	1,224	1,211	1,229	1,211
<b>Nevada</b>	75	70	69	69	71	71	68	71	68	74
<b>New Mexico</b>	18,517	18,189	18,809	19,512	19,420	19,652	20,034	20,553	21,219	21,644
<b>New York*</b>	3,464	3,739	3,627	2,876	3,213	3,117	3,095	3,270	2,767	3,190
<b>North Dakota</b>	3,483	3,391	3,418	3,481	4,224	3,519	3,779	3,506	3,512	4,841
<b>Ohio</b>	16,222	15,443	16,760	17,277	17,529	17,165	17,147	17,436	17,867	16,192
<b>Oklahoma</b>	66,986	64,254	61,074	60,923	58,088	53,530	52,326	51,869	54,408	51,160
<b>South Dakota</b>	148	143	144	144	143	143	145	162	153	163
<b>Texas</b>	175,147	166,711	163,487	161,943	158,410	154,932	152,693	152,045	153,455	154,569
<b>Utah</b>	2,201	2,112	2,142	2,201	2,163	2,217	2,433	2,685	2,953	3,107
<b>West Virginia</b>	1,895	1,558	1,263	1,708	2,188	1,469	2,099	2,115	2,107	2,613
<b>Wyoming</b>	11,775	11,599	11,910	11,921	11,716	11,688	11,743	12,147	12,813	12,094
<b>Federal Offshore</b>	4,405	4,256	4,240	4,235	4,127	3,957	3,840	3,631	3,146	3,554
<b>TOTAL U.S.</b>	<b>435,780</b>	<b>417,196</b>	<b>416,496</b>	<b>418,732</b>	<b>410,446</b>	<b>398,900</b>	<b>395,649</b>	<b>396,400</b>	<b>404,259</b>	<b>404,683</b>

Source: IHS. Total includes onshore and offshore counts.

\* DeGolyer MacNaughton

# PRODUCING NATURAL GAS WELLS

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>Alabama</b>	3,469	3,497	3,698	3,891	4,130	4,460	4,784	5,122	5,523	5,728
<b>Arizona</b>	7	7	7	7	8	6	7	4	5	5
<b>Arkansas</b>	3,117	3,073	3,336	3,454	3,510	3,704	3,959	4,298	4,481	4,955
<b>California</b>	1,287	1,309	1,359	1,484	1,416	1,467	1,497	1,579	1,715	1,806
<b>Colorado</b>	13,541	16,040	16,824	18,137	19,280	20,821	22,693	25,570	28,407	31,920
<b>Kansas</b>	15,789	15,781	18,069	16,684	17,827	16,998	17,740	18,417	19,891	20,978
<b>Kentucky</b>	9,598	9,859	10,225	10,541	11,038	11,510	12,298	11,754	12,771	16,140
<b>Louisiana</b>	13,931	13,889	13,907	8,405	8,250	8,367	8,734	9,385	10,679	11,245
<b>Michigan</b>	6,992	7,152	7,234	7,642	7,957	8,282	8,524	9,009	9,444	9,792
<b>Mississippi</b>	648	665	765	913	992	1,151	1,284	1,469	1,574	1,714
<b>Montana</b>	3,531	3,862	4,115	4,419	4,603	4,864	5,299	5,716	6,200	6,206
<b>Nebraska</b>	100	108	99	102	104	108	112	115	117	195
<b>New Mexico</b>	21,512	22,225	23,213	24,506	25,454	26,687	28,160	29,723	31,246	32,535
<b>New York</b>	5,638	5,722	5,713	6,120	5,544	6,517	6,707	6,661	6,764	7,138
<b>North Dakota</b>	83	82	92	100	97	111	133	208	371	303
<b>Ohio</b>	21,619	20,661	22,011	22,585	22,426	22,613	22,212	22,151	23,123	20,507
<b>Oklahoma</b>	24,633	25,200	26,297	27,829	29,077	30,551	32,214	34,081	36,358	38,164
<b>Oregon</b>	20	21	18	18	16	16	16	14	13	12
<b>South Dakota</b>	56	56	58	58	58	58	60	60	62	64
<b>Texas</b>	59,072	59,760	61,388	64,760	66,747	70,056	74,550	79,879	86,272	93,126
<b>Utah</b>	1,812	2,060	2,353	2,792	3,118	3,392	3,715	4,171	4,781	5,257
<b>Virginia</b>	2,064	2,367	2,682	2,891	3,142	3,421	3,856	4,238	5,007	5,748
<b>West Virginia</b>	40,298	39,429	29,977	39,465	40,846	39,763	41,309	44,172	41,364	47,476
<b>Wyoming</b>	6,119	7,470	11,115	15,705	19,269	21,099	23,749	26,475	29,875	31,747
<b>Federal Offshore</b>	4,645	4,606	4,628	4,672	4,374	4,277	4,137	3,878	3,367	3,487
<b>TOTAL U.S.</b>	<b>259,581</b>	<b>264,901</b>	<b>269,183</b>	<b>287,180</b>	<b>299,283</b>	<b>310,299</b>	<b>327,749</b>	<b>348,333</b>	<b>369,410</b>	<b>396,248</b>

Source: IHS. Data not available for certain states.

\* Alaska is not included as produced natural gas is re-injected in order to maintain reservoir pressure.

\* Previous year data may be revised.

# CRUDE OIL PRODUCTION

(thous. bbls.)	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>Alabama</b>	7,453	6,406	5,983	5,415	5,163	4,970	4,662	5,197	5,276	4,951
<b>Alaska</b>	429,232	383,199	355,149	351,466	359,496	362,371	335,740	335,740	269,150	262,427
<b>Arizona</b>	74	62	55	58	61	45	50	48	53	41
<b>Arkansas</b>	7,093	6,187	6,454	6,873	6,470	6,586	5,845	5,388	5,292	5,249
<b>California</b>	284,232	273,222	271,027	260,545	255,195	247,393	239,485	228,811	222,874	217,986
<b>Colorado</b>	16,668	13,971	13,884	13,209	12,771	12,682	12,014	11,764	11,357	10,756
<b>Florida</b>	5,938	4,888	4,624	4,406	3,644	3,263	2,875	2,585	2,349	2,080
<b>Illinois</b>	12,807	11,274	10,906	10,198	11,127	11,707	10,699	8,899	10,324	9,609
<b>Indiana</b>	2,179	1,962	2,035	2,073	1,969	1,870	1,729	1,595	1,714	1,723
<b>Kansas</b>	36,644	34,084	34,238	33,957	33,056	33,711	33,802	33,897	35,621	36,434
<b>Kentucky</b>	1,372	1,459	1,545	1,490	1,381	1,347	1,210	1,215	1,181	2,618
<b>Louisiana</b>	90,606	80,263	75,860	71,204	60,626	58,658	56,983	50,835	49,443	52,528
<b>Michigan</b>	7,360	6,846	7,502	7,070	6,583	6,230	5,763	5,744	5,686	5,394
<b>Mississippi</b>	19,620	16,389	18,564	18,040	16,781	15,678	15,635	16,402	16,103	19,034
<b>Montana</b>	16,688	15,346	15,719	16,172	16,940	19,309	24,674	32,655	36,027	34,815
<b>Nebraska</b>	3,166	2,666	2,953	2,911	2,746	2,810	2,520	2,405	2,297	2,333
<b>Nevada</b>	799	706	621	571	553	492	463	446	426	410
<b>New Mexico</b>	63,591	59,667	61,659	60,957	58,293	57,004	56,723	54,530	53,661	53,300
<b>New York</b>	0	0	0	0	0	94	110	92	188	267
<b>North Dakota</b>	35,071	32,360	32,042	30,653	29,876	28,413	30,142	34,092	36,763	42,249
<b>Ohio</b>	5,163	4,563	4,935	5,532	4,917	4,521	4,264	4,250	4,372	3,958
<b>Oklahoma</b>	71,992	65,297	62,930	61,248	58,543	56,770	54,899	52,288	53,947	51,093
<b>Oregon</b>	0	0	0	0	0	0	0	0	0	0
<b>South Dakota</b>	1,208	1,100	1,162	1,246	1,209	1,239	1,356	1,415	1,394	1,653
<b>Texas</b>	459,255	408,993	400,930	380,943	365,891	359,907	351,459	347,614	346,079	341,763
<b>Utah</b>	17,042	14,560	14,156	13,913	12,610	12,089	13,718	15,298	15,965	16,957
<b>West Virginia</b>	627	533	538	706	571	768	586	676	788	1,030
<b>Wyoming</b>	58,893	52,901	52,987	48,963	46,020	43,174	41,689	41,452	42,287	41,992
<b>Federal Offshore</b>	415,456	454,621	470,192	473,252	496,663	505,364	476,795	427,167	431,321	427,571
<b>TOTAL U.S.</b>	<b>2,070,229</b>	<b>1,953,524</b>	<b>1,928,649</b>	<b>1,883,071</b>	<b>1,869,155</b>	<b>1,858,465</b>	<b>1,785,890</b>	<b>1,700,805</b>	<b>1,661,939</b>	<b>1,650,220</b>
<b>DAILY AVG.</b>	<b>6,252</b>	<b>5,881</b>	<b>5,822</b>	<b>5,801</b>	<b>5,746</b>	<b>5,681</b>	<b>5,419</b>	<b>5,178</b>	<b>4,553</b>	<b>4,521</b>

Source: IHS.

Notes: Daily Average derived from IHS data.

# NATURAL GAS PRODUCTION

(MMcf)	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>Alabama</b>	428,112	415,442	396,775	381,831	370,977	355,701	324,437	301,634	290,530	264,468
<b>Arizona</b>	404	333	281	239	236	183	218	154	522	590
<b>Arkansas</b>	152,174	146,407	149,085	149,662	147,897	153,236	170,222	182,452	192,991	262,629
<b>California</b>	78,588	90,546	86,347	89,748	78,277	83,695	75,362	81,952	90,504	89,845
<b>Colorado</b>	673,310	706,407	758,839	803,229	912,289	997,085	1,062,396	1,120,614	1,217,865	1,273,254
<b>Kansas</b>	612,428	574,048	528,307	490,685	464,540	431,149	405,594	386,067	378,032	371,782
<b>Kentucky</b>	72,949	75,096	76,073	77,031	81,344	83,452	85,668	79,419	85,840	95,247
<b>Louisiana</b>	1,387,931	1,310,820	1,322,815	1,371,071	1,261,846	1,252,126	1,266,290	1,219,382	1,290,156	1,279,855
<b>Michigan</b>	247,144	227,506	215,038	203,038	192,482	178,082	170,023	161,614	159,295	151,701
<b>Mississippi</b>	119,764	120,227	110,869	132,500	142,950	157,847	170,157	183,103	206,269	268,328
<b>Montana</b>	52,105	55,197	64,740	74,416	79,235	78,092	87,046	91,456	93,199	88,833
<b>Nebraska</b>	1,209	1,021	861	871	894	1,183	1,217	939	898	1,282
<b>New Mexico</b>	1,400,987	1,454,198	1,461,998	1,466,020	1,412,648	1,375,603	1,372,580	1,358,029	1,352,226	1,294,420
<b>New York</b>	17,034	17,148	18,476	30,181	36,252	35,725	45,785	53,535	39,741	54,586
<b>North Dakota</b>	16,108	13,732	12,896	14,744	14,485	12,823	13,329	13,150	17,216	18,546
<b>Ohio</b>	87,785	74,411	74,125	72,225	70,426	68,428	66,562	60,451	62,021	55,657
<b>Oklahoma</b>	1,417,037	1,393,706	1,433,317	1,448,236	1,396,439	1,412,925	1,446,878	1,486,872	1,557,944	1,595,177
<b>Oregon</b>	1,263	1,555	1,596	1,115	840	734	468	457	624	371
<b>South Dakota</b>	760	685	598	538	510	523	509	428	438	453
<b>Texas</b>	4,854,011	4,715,593	4,869,777	4,940,417	4,886,656	4,962,056	5,072,699	5,319,815	5,647,050	6,214,058
<b>Utah</b>	253,950	239,524	244,989	265,032	260,714	257,510	264,789	281,368	321,626	348,601
<b>Virginia</b>	57,137	66,605	71,458	71,468	76,828	80,086	85,752	89,217	102,798	112,224
<b>West Virginia</b>	172,312	218,565	161,940	190,798	194,328	183,091	195,084	215,145	205,051	234,103
<b>Wyoming</b>	1,045,758	1,118,077	1,266,885	1,390,353	1,539,308	1,636,903	1,735,410	1,839,625	1,948,640	2,091,822
<b>Fed. Offshore</b>	4,406,420	4,316,714	4,177,882	4,278,528	3,829,757	3,715,894	3,355,752	2,594,879	2,376,086	2,292,279
<b>TOTAL U.S.</b>	<b>17,499,544</b>	<b>17,286,958</b>	<b>17,434,509</b>	<b>17,872,507</b>	<b>17,375,334</b>	<b>17,434,045</b>	<b>17,388,474</b>	<b>17,250,875</b>	<b>17,637,563</b>	<b>18,460,113</b>

Source: IHS. Data not available for certain states. Data is dry natural gas production.

\* Alaska data is not included as produced natural gas is re-injected in order to maintain reservoir pressure.

# PRODUCING MARGINAL OIL WELLS

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>Alabama</b>	317	307	295	305	300	304	320	387	320	308
<b>Alaska</b>	128	95	101	136	145	151	140	144	153	163
<b>Arizona</b>	26	27	25	24	22	23	19	22	24	21
<b>Arkansas</b>	1,920	1,871	2,002	5,334	4,141	2,427	1,910	1,925	2,255	2,263
<b>California</b>	29,484	28,803	30,194	31,274	31,314	31,770	33,010	34,338	36,121	37,399
<b>Colorado</b>	4,461	4,437	4,504	4,454	4,455	4,344	4,384	4,334	4,318	4,275
<b>Florida</b>	12	11	9	7	13	33	11	15	8	12
<b>Illinois</b>	5,848	5,463	5,500	5,102	5,166	5,107	5,148	4,964	5,269	7,060
<b>Indiana</b>	1,212	1,124	1,142	1,114	1,108	1,043	1,051	995	1,061	1,790
<b>Kansas</b>	44,914	41,825	41,716	41,141	40,933	40,607	39,386	39,250	39,582	39,908
<b>Kentucky</b>	1,107	1,078	1,060	1,034	995	981	965	947	994	1,375
<b>Louisiana</b>	15,633	15,205	14,894	15,737	15,377	15,587	15,129	15,288	15,670	15,528
<b>Michigan</b>	2,120	2,240	3,306	3,520	3,386	3,502	3,508	3,665	3,608	3,674
<b>Mississippi</b>	948	919	864	867	793	822	850	883	964	1,033
<b>Montana</b>	2,786	2,733	2,810	3,465	2,714	2,731	2,817	2,853	2,944	2,944
<b>Nebraska</b>	1,335	1,199	1,190	1,172	1,154	1,140	1,177	1,157	1,182	1,153
<b>Nevada</b>	39	32	35	38	39	42	40	45	45	50
<b>New Mexico</b>	14,954	14,727	15,324	15,893	15,916	16,181	16,602	17,114	17,761	18,257
<b>New York</b>	NA	NA	NA	NA	NA	2,249	2,164	1,966	2,073	2,259
<b>North Dakota</b>	2,053	2,019	2,035	2,085	2,819	2,163	2,412	2,164	2,179	3,289
<b>Ohio</b>	14,035	13,809	14,812	15,251	15,762	15,162	15,308	15,360	15,570	NA
<b>Oklahoma</b>	61,599	59,045	56,384	56,346	53,846	49,700	48,542	47,937	48,277	46,988
<b>South Dakota</b>	58	57	57	54	52	61	64	75	71	70
<b>Texas</b>	153,113	145,466	146,200	145,415	142,031	139,807	138,498	138,295	140,393	142,022
<b>Utah</b>	1,252	1,288	1,315	1,360	1,421	1,442	1,582	1,756	1,982	2,144
<b>West Virginia</b>	1,787	1,456	1,143	1,544	2,016	1,201	1,722	1,480	1,689	1,975
<b>Wyoming</b>	9,020	8,997	9,248	9,360	9,237	9,355	9,473	9,911	10,517	9,767
<b>Federal Offshore</b>	678	599	630	669	707	640	648	755	621	608
<b>TOTAL U.S.</b>	<b>370,838</b>	<b>354,832</b>	<b>356,795</b>	<b>362,701</b>	<b>355,862</b>	<b>348,575</b>	<b>346,876</b>	<b>348,021</b>	<b>355,651</b>	<b>346,305</b>

Source: IHS.

Notes: A marginal oil well is defined as a well producing 15 barrels/day or less.

\* Previous year data may be revised.

# MARGINAL OIL WELL PRODUCTION

(thous. bbls.)	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>Alabama</b>	731	709	703	748	752	754	740	809	706	693
<b>Alaska</b>	257	176	185	252	288	243	264	193	322	287
<b>Arizona</b>	40	30	30	39	34	32	24	37	40	27
<b>Arkansas</b>	2,667	2,910	3,103	4,095	3,212	2,881	3,042	3,046	2,878	2,898
<b>California</b>	59,951	58,766	62,439	63,431	62,603	62,889	64,825	66,663	69,579	70,860
<b>Colorado</b>	3,831	3,591	3,768	3,881	4,212	4,199	4,188	4,028	3,967	3,611
<b>Florida</b>	23	20	23	20	35	46	27	25	20	37
<b>Illinois</b>	5,884	5,507	5,551	5,068	5,227	5,267	5,104	4,249	5,153	5,780
<b>Indiana</b>	1,255	1,149	1,186	1,178	1,102	1,063	1,020	916	1,085	1,372
<b>Kansas</b>	27,114	26,276	25,835	25,504	25,250	25,016	24,607	24,541	25,262	24,772
<b>Kentucky</b>	847	793	804	799	753	698	701	677	671	773
<b>Louisiana</b>	11,562	10,702	10,617	10,342	10,043	9,773	9,547	10,029	9,494	9,894
<b>Michigan</b>	1,753	1,769	3,304	3,460	3,367	3,374	3,427	3,443	3,303	3,232
<b>Mississippi</b>	2,176	1,913	1,997	1,994	1,855	1,966	2,010	2,121	2,202	2,324
<b>Montana</b>	3,331	3,223	3,413	3,457	3,344	3,350	3,352	3,508	3,527	3,535
<b>Nebraska</b>	2,228	2,010	1,981	1,857	1,826	1,777	1,842	1,711	1,676	1,575
<b>Nevada</b>	84	60	71	89	92	90	91	103	117	125
<b>New Mexico</b>	19,876	19,574	20,064	20,549	20,516	20,825	21,045	21,788	22,252	22,618
<b>New York</b>	NA	NA	NA	NA	NA	94	110	92	188	267
<b>North Dakota</b>	4,459	4,318	4,572	4,658	4,648	4,815	4,531	4,601	4,794	4,931
<b>Ohio</b>	3,918	3,692	4,042	4,364	4,152	3,871	3,669	3,716	3,709	NA
<b>Oklahoma</b>	44,715	41,612	41,413	41,037	39,526	37,636	36,618	34,834	35,148	33,749
<b>South Dakota</b>	172	164	198	194	166	208	217	229	212	179
<b>Texas</b>	157,315	150,271	153,498	151,564	147,152	145,505	142,581	142,740	145,290	147,078
<b>Utah</b>	2,682	2,743	2,872	2,875	3,010	3,110	3,391	3,908	4,168	4,805
<b>West Virginia</b>	402	317	330	351	370	343	384	422	463	581
<b>Wyoming</b>	13,752	13,494	13,785	13,611	13,344	13,383	13,289	13,448	13,312	13,361
<b>Fed Offshore</b>	1,583	1,351	1,398	1,574	1,675	1,527	1,528	1,889	1,372	1,413
<b>TOTAL U.S.</b>	<b>372,603</b>	<b>357,140</b>	<b>367,182</b>	<b>366,993</b>	<b>358,554</b>	<b>354,735</b>	<b>352,166</b>	<b>353,755</b>	<b>360,909</b>	<b>360,777</b>

Source: IHS.

Notes: A marginal oil well is defined as a well producing 15 barrels/day or less.

\* Previous year data may be revised.

# PRODUCING MARGINAL NATURAL GAS WELLS

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>Alabama</b>	1,835	1,928	2,199	2,403	2,591	2,889	3,187	3,639	4,164	4,563
<b>Arizona</b>	2	3	3	3	5	2	2	2	2	2
<b>Arkansas</b>	1,822	1,809	2,019	2,149	2,208	2,383	2,519	2,736	2,892	2,996
<b>California</b>	588	619	685	676	693	701	720	777	836	899
<b>Colorado</b>	10,254	12,433	12,675	13,356	13,738	14,729	16,105	18,560	20,477	22,939
<b>Kansas</b>	7,939	8,355	10,967	10,223	12,044	11,891	13,531	15,083	17,196	18,776
<b>Kentucky</b>	9,444	9,684	10,074	10,405	10,868	11,329	12,129	11,616	12,617	NA
<b>Louisiana</b>	10,060	10,053	10,026	4,343	4,164	4,219	4,330	4,645	4,851	5,146
<b>Michigan**</b>	4,164	4,513	4,853	5,670	6,278	7,028	7,454	8,143	8,663	9,220
<b>Mississippi</b>	290	296	389	447	506	684	808	933	1,063	1,194
<b>Montana</b>	3,208	3,446	3,634	3,854	4,002	4,262	4,533	4,790	5,272	5,334
<b>Nebraska</b>	95	106	97	99	101	105	108	111	114	176
<b>New Mexico</b>	13,170	13,378	14,010	14,853	15,601	16,501	17,636	19,191	20,460	21,995
<b>New York</b>	5,569	5,653	5,590	6,147	6,282	6,165	6,421	6,429	6,640	6,898
<b>North Dakota</b>	64	61	64	65	60	73	79	104	156	188
<b>Ohio</b>	20,937	20,030	21,402	22,060	21,908	22,159	21,845	22,082	24,992	20,001
<b>Oklahoma</b>	14,340	15,069	16,135	17,605	18,924	20,321	21,716	23,393	24,955	26,707
<b>Oregon</b>	12	12	10	9	9	10	11	11	10	9
<b>South Dakota</b>	54	54	56	58	57	57	59	60	62	63
<b>Texas</b>	34,686	35,810	36,844	39,070	40,295	42,003	44,648	47,299	50,945	54,462
<b>Utah</b>	854	977	1,055	1,268	2,105	1,650	1,802	2,105	2,394	2,657
<b>Virginia</b>	1,518	1,695	2,003	2,260	2,440	2,702	3,085	3,438	4,117	4,802
<b>West Virginia</b>	39,699	38,724	29,366	38,704	40,052	38,843	40,451	43,242	40,544	46,507
<b>Wyoming</b>	1,959	2,804	4,664	7,162	9,591	11,127	13,443	15,526	18,060	19,592
<b>Federal Offshore</b>	668	687	739	771	818	809	796	890	723	735
<b>TOTAL U.S.*</b>	<b>183,230</b>	<b>188,200</b>	<b>189,559</b>	<b>203,660</b>	<b>214,694</b>	<b>222,642</b>	<b>237,418</b>	<b>254,805</b>	<b>272,205</b>	<b>275,861</b>

Source: IHS.

Notes: A marginal natural gas well is defined as a well producing 90 thousand cubic feet per day or less.

\* Row may not total because it includes Pacific Coastal wells.

\*\* Michigan data pre-2007 was derived from a calculated gas well count that increased well production and marginal well count compared to actual well counts used thereafter.



# MARGINAL NATURAL GAS PRODUCTION

(Mmcf)	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>Alabama</b>	28,073	30,121	33,921	37,297	39,224	44,565	47,877	53,491	60,237	66,314
<b>Arizona</b>	4	35	25	4	60	37	28	30	26	21
<b>Arkansas</b>	24,825	25,571	28,215	28,883	30,392	30,260	33,485	36,095	38,061	39,750
<b>California</b>	7,533	7,979	7,831	8,619	8,730	8,910	9,084	9,713	10,121	11,405
<b>Colorado</b>	124,522	126,150	129,869	141,619	153,957	172,671	195,752	219,516	244,131	259,934
<b>Kansas</b>	111,668	119,075	129,410	149,617	165,687	178,241	202,041	222,510	240,039	250,779
<b>Kentucky</b>	66,065	67,591	69,400	71,156	74,072	75,513	78,805	73,076	78,304	NA
<b>Louisiana</b>	40,685	39,714	40,557	38,498	38,898	39,256	40,053	43,622	47,268	50,148
<b>Michigan**</b>	76,208	80,430	87,452	98,625	104,662	114,313	117,082	123,811	124,848	128,265
<b>Mississippi</b>	4,112	4,282	5,837	7,091	8,692	11,223	12,821	13,051	14,679	16,053
<b>Montana</b>	27,769	28,823	30,391	32,251	35,138	37,138	37,945	40,639	43,571	43,672
<b>Nebraska</b>	1,090	957	744	803	790	871	833	745	809	1,282
<b>New Mexico</b>	167,627	173,304	181,395	189,482	198,763	210,703	229,172	247,133	261,701	274,675
<b>New York</b>	13,299	12,512	12,181	12,152	11,770	11,015	10,892	10,885	11,582	12,755
<b>North Dakota</b>	419	390	430	440	446	570	679	967	1,726	2,262
<b>Ohio</b>	61,009	54,241	56,226	57,316	56,954	55,331	53,979	50,250	52,003	47,802
<b>Oklahoma</b>	186,905	195,411	211,217	225,447	240,546	257,931	270,739	288,113	304,086	320,222
<b>Oregon</b>	68	125	154	79	112	113	117	138	158	134
<b>South Dakota</b>	668	600	523	538	473	483	466	428	438	420
<b>Texas</b>	400,261	410,593	421,242	445,556	456,420	479,600	508,976	538,749	583,720	623,976
<b>Utah</b>	12,728	14,112	15,922	19,656	21,997	25,294	27,679	30,932	35,244	36,895
<b>Virginia</b>	20,351	23,534	28,446	31,964	35,408	36,924	40,141	43,994	53,268	61,584
<b>West Virginia</b>	151,707	159,474	126,932	157,127	162,879	152,036	161,214	175,204	167,499	189,735
<b>Wyoming</b>	27,853	36,181	56,571	88,040	110,670	136,706	157,753	174,246	187,707	195,370
<b>Federal Offshore</b>	7,710	8,277	9,158	10,033	10,078	9,897	9,722	11,030	8,802	9,109
<b>TOTAL U.S.*</b>	<b>1,563,160</b>	<b>1,619,483</b>	<b>1,655,603</b>	<b>1,853,471</b>	<b>1,967,418</b>	<b>2,091,600</b>	<b>2,247,334</b>	<b>2,408,367</b>	<b>2,570,029</b>	<b>2,642,563</b>

Source: IHS.

Notes: A marginal natural gas well is defined as a well producing 90 thousand cubic feet per day or less.

\* Row may not total because it includes Pacific Coastal wells.

\* Totals may not add due to rounding.

\*\* Michigan data pre-2007 was derived from a calculated gas well count that increased well production and marginal well count compared to actual well counts used thereafter.

# COST OF DRILLING AND EQUIPPING WELLS 2007

State	No. of Wells Drilled	Footage Drilled	Depth per Well (ft.)	Total Cost	Cost per Well (\$)	Cost per Foot
Alabama	554	1,821,607	3,288	665,068,000	1,200,484	365.10
Alaska	148	1,055,588	7,132	4,025,116,000	27,196,730	3,813.15
Arizona	2	5,032	2,516	1,091,000	545,500	216.81
Arkansas	830	5,266,584	6,345	1,527,991,000	1,840,953	290.13
California	2,367	6,586,885	2,783	3,207,096,000	1,354,920	486.89
Colorado	3,440	20,752,817	6,033	9,552,515,000	2,776,894	460.30
Florida	-	-	-	-	-	-
Illinois	437	998,425	2,285	254,478,000	582,330	254.88
Indiana	113	196,183	1,736	69,988,000	619,363	356.75
Kansas	3,249	9,577,647	2,948	1,166,223,000	358,948	121.77
Kentucky	1,269	3,410,961	2,688	498,329,000	392,694	146.10
Louisiana	1,630	14,672,997	9,002	8,776,279,000	5,384,220	598.12
Michigan	482	970,566	2,014	590,743,000	1,225,608	608.66
Mississippi	332	2,906,148	8,753	1,758,375,000	5,296,310	605.05
Montana	862	4,376,858	5,078	1,861,774,000	2,159,831	425.37
Nebraska	165	527,964	3,200	119,364,000	723,418	226.08
Nevada	2	14,582	7,291	2,373,000	1,186,500	162.73
New Mexico	1,838	11,049,006	6,011	2,961,913,000	1,611,487	268.07
New York	350	1,106,096	3,160	244,019,000	697,197	220.61
North Dakota	519	5,345,000	10,299	2,493,454,000	4,804,343	466.50
Ohio	806	3,112,904	3,862	358,396,000	444,660	115.13
Oklahoma	3,588	24,992,044	6,965	8,628,551,000	2,404,836	345.25
Pennsylvania	4,169	14,268,265	3,422	1,740,355,000	417,451	121.97
South Dakota	48	206,684	4,306	111,077,000	2,314,104	537.42
Tennessee	71	257,144	3,622	33,349,000	469,704	129.69
Texas	14,392	118,849,626	8,258	50,262,148,000	3,492,367	422.91
Utah	961	7,383,174	7,683	3,558,232,000	3,702,635	481.94
Virginia	705	1,977,601	2,805	281,327,000	399,045	142.26
Washington	2	28,000	14,000	27,968,000	13,984,000	998.86
West Virginia	1,824	8,043,597	4,410	864,656,000	474,044	107.50
Wyoming	3,061	15,385,795	5,026	10,697,986,000	3,494,932	695.32
Federal Offshore	555	5,543,319	9,988	22,960,440,000	41,370,162	4,142
<b>TOTAL U.S.</b>	<b>48,771</b>	<b>290,689,099</b>	<b>5,960</b>	<b>139,300,671,603</b>	<b>2,856,219</b>	<b>479.21</b>
Exploratory	5,346	32,908,291	6,156	17,141,687,344	3,206,451	520.89
Developmental	43,425	257,780,808	5,936	122,158,984,260	2,813,103	473.89

Source: IHS.

# CRUDE OIL REVENUES

(thous. \$.)	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>Alabama</b>	149,768	185,865	288,927	216,362	201,879	228,197	288,714	418,677	475,658	510,000
<b>Alaska</b>	3,666,668	4,828,307	8,439,528	6,448,392	7,021,406	8,509,077	11,027,864	14,890,978	15,425,817	16,819,997
<b>Arizona</b>	912	1,060	1,576	1,287	1,363	1,252	1,917	2,605	3,383	2,892
<b>Arkansas</b>	88,778	113,614	193,015	165,657	157,896	191,995	246,862	322,656	358,122	387,492
<b>California</b>	2,654,749	3,800,397	6,702,383	5,213,260	5,596,237	6,572,500	8,243,870	11,113,988	12,240,536	14,032,040
<b>Colorado</b>	280,892	320,807	533,177	410,026	448,493	648,257	892,277	1,263,025	1,492,282	1,557,808
<b>Florida</b>	61,083	85,663	134,339	NA	NA	NA	NA	NA	NA	NA
<b>Illinois</b>	175,495	209,569	343,477	239,786	287,296	340,354	425,520	522,598	616,283	630,927
<b>Indiana</b>	27,578	33,997	58,555	47,436	45,970	52,929	67,006	88,112	102,666	113,067
<b>Kansas</b>	433,245	496,106	970,478	799,674	772,543	973,514	1,326,556	1,806,486	2,165,442	2,439,357
<b>Kentucky</b>	34,088	46,320	91,719	66,892	60,251	69,059	93,817	125,356	136,492	169,558
<b>Louisiana</b>	1,677,750	2,110,941	3,041,511	2,548,300	2,307,012	2,731,264	3,343,113	4,043,624	4,719,199	5,456,018
<b>Michigan</b>	111,436	130,313	222,345	167,339	170,946	190,370	250,848	297,815	310,113	347,791
<b>Mississippi</b>	227,580	276,804	520,508	412,627	398,312	455,644	635,176	877,318	1,030,079	1,400,185
<b>Missouri</b>	1,068	1,436	2,667	1,854	2,045	2,169	3,269	4,239	4,989	4,862
<b>Montana</b>	185,928	247,058	429,207	368,707	383,620	553,711	952,616	1,730,144	2,055,693	2,251,347
<b>Nebraska</b>	36,501	45,830	82,707	69,164	65,640	78,876	96,319	126,393	133,622	146,529
<b>Nevada</b>	9,005	9,792	14,084	9,798	9,904	12,098	14,807	19,078	24,836	26,194
<b>New Mexico</b>	893,974	1,124,005	1,935,302	1,612,984	1,616,359	1,952,158	2,521,263	3,205,274	3,693,163	4,055,809
<b>New York*</b>	2,487	3,333	6,006	3,778	4,461	4,163	6,698	10,764	20,260	26,395
<b>North Dakota*</b>	405,051	549,129	922,349	746,323	748,481	860,714	1,224,352	1,867,871	2,262,555	2,942,287
<b>Ohio*</b>	79,800	97,968	180,747	136,450	135,750	159,132	221,392	302,212	340,990	371,431
<b>Oklahoma</b>	987,568	1,253,780	2,034,902	1,691,345	1,632,063	1,942,380	2,496,955	3,384,253	3,965,896	4,224,583
<b>Oregon</b>	2	6	0	0	0	0	0	0	0	0
<b>Pennsylvania</b>	27,067	27,199	43,200	40,208	55,512	71,780	100,200	215,388	232,137	255,710
<b>South Dakota*</b>	14,822	18,546	32,971	29,982	29,087	35,799	52,109	74,405	72,279	104,529
<b>Tennessee</b>	3,226	5,496	9,093	7,708	6,020	8,260	13,162	14,765	10,956	18,565
<b>Texas</b>	6,197,249	7,767,239	12,681,154	9,932,793	9,792,883	11,820,983	15,239,311	20,395,845	24,353,558	27,107,463
<b>Utah</b>	240,371	287,516	446,095	367,421	326,446	378,212	575,651	898,821	1,069,227	1,219,610
<b>Virginia</b>	58	135	NA	NA	NA	131	NA	NA	NA	NA
<b>West Virginia</b>	17,578	24,213	37,968	27,401	31,164	37,432	51,391	84,011	110,309	105,883
<b>Wyoming</b>	693,167	1,006,745	1,632,922	1,237,681	1,201,585	1,395,598	1,811,827	2,355,694	2,817,138	3,157,944
<b>TOTAL U.S.</b>	<b>24,804,460</b>	<b>33,403,150</b>	<b>56,932,491</b>	<b>46,246,440</b>	<b>47,206,261</b>	<b>57,144,365</b>	<b>72,926,015</b>	<b>70,497,842</b>	<b>111,158,240</b>	<b>89,844,213</b>

Source: \* EIA price and production data used in addition to state data when EIA not available. Total does not include Federal Offshore.

# NATURAL GAS REVENUES

(thous. \$.)	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>Alabama</b>	867,191	885,546	1,450,233	1,509,306	1,204,585	1,874,005	2,160,750	2,751,780	2,166,685	2,011,828
<b>Alaska**</b>	615,975	634,265	807,831	938,166	986,831	1,180,314	1,613,895	2,314,590	2,574,952	2,440,521
<b>Arizona</b>	859	986	1,288	1,265	783	1,918	1,695	1,596	3,593	3,917
<b>Arkansas</b>	738,418	600,269	897,688	832,352	717,089	876,827	1,062,552	1,383,270	1,737,984	1,867,611
<b>California</b>	621,096	903,207	1,811,350	2,618,320	1,051,799	1,699,569	1,807,542	2,336,396	2,039,402	2,033,399
<b>Colorado</b>	1,323,010	1,575,569	2,763,455	3,138,071	2,258,760	4,591,234	5,622,814	8,418,829	7,361,265	5,678,549
<b>Florida</b>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Illinois</b>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Indiana</b>	1,285	1,872	3,155	3,490	4,071	7,920	21,426	28,560	17,555	20,843
<b>Kansas</b>	1,026,096	960,154	1,687,590	1,757,331	1,187,292	1,813,807	1,961,778	2,455,761	2,081,557	2,081,840
<b>Kentucky</b>	195,667	158,914	257,682	390,636	265,660	397,740	495,802	634,718	841,676	701,462
<b>Louisiana</b>	3,134,998	3,478,554	5,354,452	5,993,323	4,357,603	7,616,250	8,065,364	11,301,539	9,432,555	9,572,037
<b>Maryland</b>	164	49	128	133	132	216	213	342	366	NA
<b>Michigan</b>	492,195	490,934	723,597	954,375	592,868	950,318	999,772	1,383,894	NA	NA
<b>Mississippi</b>	153,457	180,964	292,241	422,636	345,719	686,912	369,348	451,962	414,032	492,182
<b>Missouri</b>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Montana</b>	88,197	102,754	198,618	253,959	205,719	320,881	436,397	709,021	624,033	668,371
<b>Nebraska</b>	2,204	1,389	2,753	2,609	1,806	4,609	4,753	4,922	NA	NA
<b>New Mexico</b>	2,641,932	3,189,626	5,814,862	6,570,696	4,373,974	7,314,308	8,113,719	11,368,097	9,944,998	10,628,430
<b>New York*</b>	42,749	37,040	66,589	138,935	111,552	208,872	321,429	429,300	399,137	486,237
<b>North Dakota</b>	113,816	122,640	210,538	193,204	155,741	196,596	315,202	441,479	360,380	365,149
<b>Ohio*</b>	339,495	266,107	426,808	454,486	466,274	564,282	601,665	754,213	668,941	668,641
<b>Oklahoma</b>	2,954,780	3,267,704	5,854,791	6,509,998	4,649,922	7,744,030	9,139,845	11,819,425	10,674,385	10,885,012
<b>Oregon</b>	2,539	3,253	3,266	4,063	3,323	3,275	1,817	1,930	2,745	2,155
<b>Pennsylvania</b>	387,041	539,826	346,500	446,209	538,098	NA	NA	NA	NA	NA
<b>South Dakota</b>	4,001	1,459	5,881	3,762	3,024	5,493	6,001	7,380	6,163	7,184
<b>Tennessee</b>	3,053	2,804	4,704	7,200	6,991	9,412	14,490	21,010	18,055	26,135
<b>Texas</b>	10,768,603	11,675,863	20,758,669	21,764,819	16,245,797	27,161,677	29,542,446	39,836,828	36,616,945	42,520,234
<b>Utah</b>	479,798	506,845	883,255	999,374	546,731	1,101,718	1,456,558	2,156,757	1,912,277	1,452,939
<b>Virginia*</b>	123,668	179,756	284,034	329,965	453,915	397,612	NA	NA	NA	NA
<b>West Virginia</b>	426,600	653,509	855,810	790,583	654,457	814,718	928,892	1,563,234	1,617,050	1,585,922
<b>Wyoming</b>	1,608,828	1,913,323	3,635,016	4,759,938	3,925,684	6,357,383	7,897,327	11,245,715	10,624,776	8,942,992
<b>TOTAL U.S.</b>	<b>29,166,538</b>	<b>32,350,548</b>	<b>55,414,592</b>	<b>61,789,202</b>	<b>45,316,197</b>	<b>73,901,897</b>	<b>106,565,501</b>	<b>138,735,606</b>	<b>124,027,817</b>	<b>127,523,075</b>

Source: EIA wellhead price and marketed production data.

\* State data used when EIA not available.

\*\* Alaska natural gas is reinjected.

# ABANDONMENTS

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>Alabama</b>	6	10	60	38	19	34	29	19	78	20
<b>Arizona</b>	0	1	0	0	0	0	0	4	0	0
<b>Arkansas</b>	149	112	142	92	66	108	69	76	73	125
<b>California</b>	1,421	1,116	1,647	1,478	2,521	2,501	1,629	2,496	1,999	2,119
<b>Colorado</b>	268	157	178	193	152	215	212	206	282	104
<b>Florida</b>	0	0	0	0	0	0	0	0	1	2
<b>Illinois</b>	802	590	647	699	715	659	554	557	853	735
<b>Indiana</b>	155	61	80	101	127	102	80	27	159	374
<b>Kansas</b>	1,707	2,198	844	1,877	2,020	2,270	1,473	2,379	1,318	885
<b>Kentucky</b>	287	239	310	262	289	312	263	236	503	240
<b>Louisiana</b>	1,150	956	933	1,169	1,127	1,500	898	951	750	791
<b>Michigan</b>	170	172	166	196	220	177	196	136	87	108
<b>Mississippi</b>	86	107	128	93	144	106	90	59	34	91
<b>Missouri</b>	2	4	12	1	4	12	4	7	11	27
<b>Montana</b>	195	180	202	160	124	169	113	159	227	222
<b>Nebraska</b>	90	70	67	85	108	81	55	19	15	20
<b>New Mexico</b>	354	256	223	338	389	263	752	640	420	575
<b>New York</b>	77	68	94	59	106	115	83	75	19	110
<b>North Dakota</b>	81	70	78	89	57	40	50	28	71	18
<b>Ohio</b>	746	603	598	624	581	500	572	818	577	598
<b>Oklahoma</b>	1,882	1,164	1,247	975	1,139	1,056	956	1,407	1,090	1,090
<b>Pennsylvania</b>	1,162	712	420	324	358	328	306	320	100	323
<b>South Dakota</b>	7	8	0	0	1	2	0	2	0	0
<b>Tennessee</b>	138	127	138	57	53	86	50	25	34	250
<b>Texas</b>	6,595	5,355	5,486	6,305	6,579	6,902	6,718	6,160	6,417	5,030
<b>Utah</b>	64	54	36	42	22	17	57	73	65	125
<b>Virginia</b>	0	0	0	9	9	60	45	44	98	0
<b>West Virginia</b>	336	330	314	420	246	327	335	308	285	276
<b>Wyoming</b>	216	48	172	139	329	241	517	570	635	706
<b>TOTAL U.S.</b>	<b>18,147</b>	<b>14,768</b>	<b>14,222</b>	<b>15,825</b>	<b>17,505</b>	<b>18,183</b>	<b>16,106</b>	<b>17,782</b>	<b>16,201</b>	<b>14,970</b>

Source: IOGCC.

Note: 2007 data for oil and gas wells plugged and abandoned as of January 1, 2008. Estimated data for Colorado, Illinois, Pennsylvania, Tennessee and West Virginia.

## SEVERANCE AND PRODUCTION TAXES

(thous. \$)	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>Alabama</b>	55,078	37,899	68,341	107,024	53,235	92,695	101,184	132,300	177,280	139,380
<b>Alaska</b>	395,500	507,000	759,000	558,772	519,368	1,093,356	651,900	863,000	1,199,500	2,208,400
<b>Arizona</b>	5,952	6,398	6,060	7,026	6,510	8,377	9,899	10,022	7,979	6,761
<b>Arkansas</b>	4,372	4,616	9,476	9,546	6,608	8,355	9,802	15,078	15,078	14,928
<b>California</b>	157,652	194,606	215,696	239,921	189,306	214,473	188,753	268,796	328,876	471,185
<b>Colorado</b>	19,756	23,327	24,641	54,384	48,914	23,613	107,145	134,050	196,668	126,244
<b>Florida</b>	7,318	4,157	6,046	8,258	5,197	5,469	6,084	8,278	9,527	9,288
<b>Indiana</b>	550	502	653	572	567	590	845	1,119	1,215	1,350
<b>Kansas</b>	51,686	120,333	56,900	109,232	59,895	84,212	116,677	148,855	148,855	131,217
<b>Kentucky</b>	11,212	8,452	11,414	20,678	14,610	17,800	22,170	28,630	42,586	38,538
<b>Louisiana</b>	336,294	240,055	354,314	478,805	454,429	480,749	677,320	714,729	885,402	981,229
<b>Maryland</b>	1	1	1	2	1	1	1	4	4	3
<b>Michigan</b>	30,982	30,570	40,012	61,279	35,967	54,651	56,186	66,749	88,143	67,796
<b>Mississippi</b>	25,346	14,518	23,751	11,817	28,201	43,413	62,631	84,409	6,809	8,364
<b>Montana</b>	35,065	28,997	43,770	92,818	50,304	75,454	114,218	180,077	204,129	242,776
<b>Nebraska</b>	1,334	1,017	2,108	1,868	1,455	1,845	2,191	2,926	2,796	2,894
<b>Nevada</b>	74	50	62	62	56	248	45	43	42	40
<b>New Mexico</b>	375,800	227,200	345,300	355,370	479,109	571,862	737,200	926,884	1,169,271	987,921
<b>North Dakota</b>	39,200	35,402	71,275	66,800	62,300	66,846	73,914	157,500	166,147	185,970
<b>Ohio</b>	3,383	3,327	3,090	2,884	2,799	2,900	2,691	2,615	2,554	2,452
<b>Oklahoma</b>	360,285	253,039	410,412	745,236	417,103	600,980	701,156	875,653	1,168,598	1,001,328
<b>Oregon</b>	93	98	146	119	145	89	72	79	90	117
<b>South Dakota</b>	1,018	730	1,051	1,566	1,239	1,522	1,658	2,507	3,256	3,153
<b>Tennessee</b>	213	363	532	380	498	592	592	813	1,041	1,838
<b>Texas</b>	926,562	659,396	1,153,086	1,956,108	1,049,054	1,492,743	1,887,879	2,338,380	3,200,807	2,729,862
<b>Utah</b>	13,989	11,109	17,313	42,106	20,603	28,689	39,356	57,116	77,074	70,178
<b>West Virginia</b>	16,119	19,161	18,048	34,549	28,382	30,475	41,544	53,557	84,947	80,294
<b>Wyoming</b>	73,754	125,178	567,445	581,532	327,497	370,381	504,731	713,456	660,461	595,031
<b>TOTAL U.S.</b>	<b>2,948,591</b>	<b>2,557,499</b>	<b>4,209,943</b>	<b>5,548,712</b>	<b>3,863,352</b>	<b>5,372,380</b>	<b>6,116,938</b>	<b>7,787,500</b>	<b>9,851,179</b>	<b>10,108,535</b>

Source: Various state and industry contacts.

Notes: Figures include all state and local tax revenues. States vary on the use of fiscal (Arizona) or calendar year data. West Virginia data switched to FY in 2001. Totals may not add due to rounding. Some taxes may include other commodities - for example Arizona's Transaction Privilege Tax includes taxes paid on coal, sand and gravel transactions in addition to oil and natural gas.

# CRUDE OIL WELLHEAD PRICES

(\$/bbl.)	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>Alabama</b>	12.08	16.71	27.63	23.18	23.39	28.97	38.79	53.26	63.16	71.10
<b>Alaska</b>	8.55	12.60	23.76	18.35	19.54	23.93	33.17	47.21	57.03	63.81
<b>Arizona*</b>	11.69	16.06	26.72	21.82	21.63	26.63	36.86	52.09	61.51	67.26
<b>Arkansas</b>	11.10	15.89	26.98	21.82	21.50	26.57	36.67	50.86	58.67	64.25
<b>California</b>	9.36	13.92	24.72	20.00	21.69	26.29	34.32	48.26	54.78	64.73
<b>Colorado</b>	12.56	17.37	28.85	24.82	25.29	30.71	40.38	55.34	63.80	67.04
<b>Florida</b>	10.23	17.50	29.04	NA	NA	NA	NA	NA	NA	NA
<b>Illinois</b>	12.78	17.37	28.14	23.76	23.84	29.10	38.74	51.20	59.70	65.66
<b>Indiana</b>	12.49	17.31	27.91	23.46	23.43	28.38	38.18	51.02	59.31	65.47
<b>Kansas</b>	12.19	17.08	28.16	23.56	23.61	28.68	39.18	53.41	60.74	66.85
<b>Kentucky</b>	11.67	16.68	26.47	22.53	22.49	27.21	36.82	49.45	58.33	63.60
<b>Louisiana</b>	12.50	17.59	28.85	24.36	24.68	30.31	40.08	53.57	63.88	71.18
<b>Michigan</b>	12.39	16.63	28.12	22.69	23.68	29.18	39.14	53.67	60.89	66.87
<b>Mississippi</b>	10.33	15.42	26.23	21.13	22.11	27.46	37.03	49.58	59.35	68.65
<b>Missouri*</b>	11.48	15.61	28.37	20.37	21.53	26.45	37.15	49.87	57.34	60.77
<b>Montana</b>	11.28	16.54	27.82	23.16	22.76	28.66	38.53	52.66	56.69	64.64
<b>Nebraska</b>	11.50	17.21	27.97	23.67	23.62	28.63	38.42	52.38	57.77	62.78
<b>Nevada*</b>	11.27	13.87	22.68	17.13	17.91	24.54	31.98	42.68	58.30	64.20
<b>New Mexico</b>	12.36	17.46	28.80	23.72	24.11	29.52	39.25	52.84	61.74	68.94
<b>New York</b>	11.46	16.18	28.60	22.76	24.92	28.91	39.40	54.64	63.51	69.46
<b>North Dakota</b>	11.39	16.70	28.19	23.55	24.15	29.27	39.30	52.38	56.69	65.30
<b>Ohio</b>	12.20	16.41	27.49	22.55	22.61	28.18	38.27	53.47	62.89	68.09
<b>Oklahoma</b>	12.73	17.77	29.08	24.68	24.49	29.72	39.95	54.46	63.11	69.31
<b>Pennsylvania</b>	13.67	18.49	28.80	24.82	24.86	29.60	39.48	54.57	64.02	70.00
<b>South Dakota</b>	12.29	16.86	28.18	23.89	23.96	28.94	38.40	50.65	51.85	62.78
<b>Tennessee*</b>	11.24	15.93	26.28	21.96	21.89	26.56	36.46	45.57	57.06	65.37
<b>Texas</b>	12.28	17.29	28.60	23.41	23.77	29.13	38.79	52.61	61.31	68.30
<b>Utah</b>	12.52	17.69	28.53	24.09	23.87	28.88	39.35	53.98	59.70	62.48
<b>Virginia*</b>	11.64	16.88	NA	NA	NA	26.23	NA	NA	NA	NA
<b>West Virginia</b>	11.95	16.46	27.12	22.35	22.55	28.06	38.38	53.75	63.07	67.27
<b>Wyoming</b>	10.70	16.47	26.89	21.55	21.96	26.63	35.10	45.63	53.25	58.34
<b>TOTAL U.S.</b>	<b>10.87</b>	<b>15.56</b>	<b>26.72</b>	<b>21.84</b>	<b>22.51</b>	<b>27.56</b>	<b>36.77</b>	<b>50.28</b>	<b>59.69</b>	<b>66.52</b>

Source: Energy Information Administration and State Sources\*

Notes: Data represent average first purchase price of crude oil at the lease or wellhead.

Wellhead prices for Alaska, California, Louisiana and Texas are derived from formulas that include proportional production for onshore and offshore.

# NATURAL GAS WELLHEAD PRICES

(\$/Mcf)	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>Alabama</b>	2.21	2.32	3.99	4.23	3.48	5.93	6.66	9.28	7.57	7.44
<b>Alaska</b>	1.32	1.37	1.76	1.99	2.13	2.41	3.42	4.75	5.79	5.63
<b>Arizona*</b>	1.88	2.08	3.50	4.12	2.60	4.33	5.12	6.86	5.70	5.98
<b>Arkansas</b>	3.92	4.10	5.23	4.99	4.43	5.17	5.68	7.26	6.43	6.92
<b>California</b>	1.97	2.36	4.81	6.93	2.92	5.04	5.65	7.45	6.47	6.62
<b>Colorado</b>	1.90	2.18	3.67	3.84	2.41	4.54	5.21	7.43	6.12	4.57
<b>Florida*</b>	1.42	2.50	1.76	NA	NA	NA	NA	NA	NA	NA
<b>Illinois*</b>	2.74	2.74	2.05	NA	NA	NA	NA	NA	NA	NA
<b>Indiana</b>	2.09	2.19	3.51	3.28	3.11	5.41	6.30	9.11	6.01	5.78
<b>Kansas</b>	1.70	1.80	3.21	3.66	2.61	4.33	4.94	6.51	5.61	5.69
<b>Kentucky</b>	2.39	2.07	3.16	4.78	3.01	4.54	5.26	6.84	8.83	7.35
<b>Louisiana</b>	2.02	2.22	3.68	3.99	3.20	5.64	5.96	8.72	6.93	7.02
<b>Maryland</b>	2.60	2.73	3.75	4.15	5.98	4.50	6.25	7.43	7.63	NA
<b>Michigan*</b>	1.77	1.77	2.44	3.47	2.16	4.01	3.85	5.30	NA	8.46
<b>Mississippi</b>	1.42	1.63	3.30	3.93	3.06	5.13	5.83	8.54	6.84	6.70
<b>Missouri</b>	1.62	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Montana</b>	1.53	1.68	2.84	3.12	2.39	3.73	4.51	6.57	5.53	5.72
<b>Nebraska</b>	1.30	1.36	2.26	2.16	1.52	3.17	3.22	4.29	NA	NA
<b>New Mexico</b>	1.76	2.11	3.43	3.89	2.68	4.56	4.97	6.91	6.18	6.88
<b>New York</b>	2.56	2.16	3.75	5.00	3.03	5.78	6.98	7.78	7.13	8.85
<b>North Dakota</b>	2.14	2.32	3.94	3.53	2.73	3.53	5.73	8.40	6.52	6.67
<b>Ohio</b>	2.95	2.43	4.06	4.54	4.52	5.90	6.65	9.03	7.75	7.59
<b>Oklahoma</b>	1.77	2.05	3.63	4.03	2.94	4.97	5.52	7.21	6.32	6.24
<b>Oregon</b>	2.38	2.52	2.69	3.66	3.97	4.48	3.89	4.25	4.42	5.27
<b>Pennsylvania*</b>	2.97	3.09	2.31	3.41	3.41	NA	NA	NA	NA	NA
<b>South Dakota</b>	2.47	2.13	3.56	3.42	2.95	4.98	5.49	7.44	6.40	7.22
<b>Tennessee</b>	2.15	2.28	4.09	3.60	3.41	5.22	6.90	9.55	6.78	6.63
<b>Texas</b>	2.06	2.31	3.93	4.12	3.16	5.18	5.83	7.55	6.60	6.98
<b>Utah*</b>	1.73	1.93	3.28	3.52	1.99	4.11	5.24	7.16	5.49	3.86
<b>Virginia*</b>	2.16	2.49	3.97	4.29	3.16	4.65	NA	NA	NA	NA
<b>West Virginia*</b>	2.37	2.99	3.24	4.12	3.44	4.34	4.71	7.07	7.17	6.86
<b>Wyoming</b>	1.78	1.97	3.34	3.49	2.70	4.13	4.96	6.86	5.85	4.65
<b>TOTAL U.S.</b>	<b>1.96</b>	<b>2.19</b>	<b>3.68</b>	<b>4.00</b>	<b>2.95</b>	<b>4.88</b>	<b>5.46</b>	<b>7.33</b>	<b>6.39</b>	<b>6.39</b>

Source: Energy Information Administration and State Sources\*



## REFINER ACQUISITION COST OF CRUDE OIL

(\$/bbl.)	Domestic	Imported	Composite
1981	34.33	37.05	35.24
1982	31.22	33.55	31.87
1983	28.87	29.30	28.99
1984	28.53	28.88	28.63
1985	26.66	26.99	26.75
1986	14.82	14.00	14.55
1987	17.76	18.13	17.90
1988	14.74	14.56	14.67
1989	17.87	18.08	17.97
1990	22.59	21.76	22.22
1991	19.33	18.70	19.06
1992	18.63	18.20	18.43
1993	16.67	16.14	16.41
1994	15.67	15.51	15.59
1995	17.33	17.14	17.23
1996	20.77	20.64	20.71
1997	19.61	18.53	19.04
1998	13.18	12.04	12.52
1999	17.90	17.26	17.51
2000	29.11	27.70	28.26
2001	24.33	22.00	22.95
2002	24.65	23.71	24.10
2003	29.82	27.71	28.53
2004	38.97	35.90	36.98
2005	52.94	48.86	50.24
2006	62.62	59.02	60.24
2007	69.65	67.04	67.94

Source: Energy Information Administration

## RETAIL GASOLINE PRICES

(¢/gal.)	Excluding Taxes	Taxes	Pump Price
1984	90.7	30.5	121.2
1985	91.2	29.0	120.2
1986	62.4	30.3	92.7
1987	66.9	27.9	94.8
1988	67.3	27.3	94.6
1989	75.6	26.5	102.1
1990	88.3	28.1	116.4
1991	79.7	34.3	114.0
1992	78.7	34.0	112.7
1993	75.9	34.9	110.8
1994	73.8	37.4	111.2
1995	76.5	38.2	114.7
1996	84.7	38.4	123.1
1997	83.9	39.5	123.4
1998	67.3	38.6	105.9
1999	78.1	38.4	116.5
2000	110.6	40.4	151.0
2001	103.2	42.9	146.1
2002	94.7	41.1	135.8
2003	115.6	43.5	159.1
2004	143.5	44.5	188.0
2005	182.9	46.6	229.5
2006	212.8	46.1	258.9
2007	234.5	45.6	280.1

Source: Energy Information Administration. Pump price quoted for unleaded regular.

## WORLD CRUDE OIL RESERVES

(mill. bbls.)	United States	Canada	Latin America	Middle East	Africa	Asia Pacific	Western Europe	Eastern Europe & FSU	Total World
1991	26,254	5,588	119,765	661,571	60,488	44,073	14,503	58,774	991,011
1992	24,682	5,292	123,811	661,791	61,872	44,572	15,829	59,193	997,042
1993	23,745	5,096	124,996	662,866	61,963	44,647	16,643	59,168	999,124
1994	22,957	5,096	129,073	660,295	62,177	44,453	16,572	59,196	999,319
1995	22,457	4,898	128,695	659,555	73,154	43,953	15,573	59,188	1,007,475
1996	22,351	4,893	127,943	676,352	67,555	42,299	18,361	59,093	1,018,849
1997	22,017	4,839	126,115	676,952	70,062	42,275	18,128	59,101	1,019,545
1998	22,546	4,931	136,867	673,647	75,442	43,013	18,719	59,053	1,034,265
1999	21,034	4,931	117,931	675,636	74,890	43,985	18,611	59,024	1,016,041
2000	21,765	4,706	122,809	683,516	74,889	43,957	17,185	59,024	1,027,852
2001	22,045	4,858	122,912	685,592	76,677	43,779	17,135	58,555	1,031,553
2002	22,446	180,021	111,173	685,642	77,429	38,712	18,098	79,360	1,212,881
2003	22,677	178,893	114,522	726,842	87,043	38,258	18,233	79,343	1,265,812
2004	21,891	178,800	115,195	729,341	100,784	36,246	16,102	79,343	1,277,702
2005	21,371	178,792	116,246	743,411	102,580	35,936	14,842	79,370	1,292,550
2006	21,757	179,210	115,150	739,205	114,073	33,366	14,695	99,992	1,317,447
2007	20,972	178,592	121,507	748,286	114,838	34,350	13,157	99,997	1,331,698

Source: Oil & Gas Journal. Estimated proved reserves as of 1/1 of stated year. Totals may not add due to rounding. Canadian reserves include oil sands after 2001.

# WHOLESALE PRICES—TOTAL U.S.

Year	Motor Gasoline	Kerosene	Fuel Oil		Average		Crude Oil
			Distillate	Residual	Of Four Products		
			(¢/gal.)			(\$/bbl.)	
1952	11.38	9.90	8.52	3.84	8.62	3.62	2.53
1953	12.01	10.23	8.83	3.73	8.96	3.76	2.68
1954	11.66	10.40	8.94	3.97	8.88	3.73	2.78
1955	11.62	10.53	9.08	4.53	9.06	3.81	2.77
1956	11.75	10.99	9.45	5.30	9.43	3.96	2.79
1957	12.34	11.54	10.05	6.15	10.10	4.24	3.09
1958	11.74	10.96	9.39	4.82	9.27	3.89	3.01
1959	11.64	11.26	9.31	4.79	9.22	3.87	2.90
1960	11.61	11.17	8.79	4.88	9.15	3.84	2.88
1961	11.62	11.49	9.10	4.85	9.21	3.87	2.89
1962	11.52	11.42	9.11	4.78	9.13	3.84	2.90
1963	11.35	11.51	9.18	4.61	9.01	3.79	2.89
1964	11.27	10.93	8.65	4.50	8.83	3.71	2.88
1965	11.52	11.28	9.04	4.81	9.12	3.83	2.86
1966	11.59	11.49	9.09	4.73	9.15	3.84	2.88
1967	11.84	11.96	9.71	4.53	9.33	3.92	2.92
1968	11.55	12.03	9.84	4.30	9.14	3.84	2.94
1969	11.80	11.98	10.06	4.20	9.27	3.89	3.09
1970	12.33	12.43	10.45	6.14	10.20	4.28	3.18
1971	12.70	12.90	10.75	7.76	10.94	4.59	3.39
1972	12.70	12.87	10.61	7.60	10.87	4.57	3.39
1973	14.72	14.08	12.61	8.45	12.49	5.25	3.89
1974	25.53	24.02	22.57	20.43	23.48	9.86	6.87
1975	30.27	27.41	26.09	22.03	27.03	11.35	7.67
1976	33.82	31.67	30.38	21.66	29.55	12.41	8.19
1977	36.99	35.81	34.41	25.87	33.21	13.95	8.57
1978	39.22	37.23	35.66	23.00	33.72	14.16	9.00
1979	56.84	56.60	54.47	33.63	49.50	20.79	12.64
1980	87.40	80.26	78.21	44.43	72.77	30.56	21.59
1981	101.63	101.03	97.20	61.17	88.75	37.28	31.77
1982	94.56	97.18	91.95	57.80	83.27	34.97	28.52
1983	86.97	85.12	80.05	57.30	76.94	32.31	26.19
1984	81.14	84.75	79.62	59.14	74.49	31.29	25.88
1985	81.11	81.69	76.66	56.41	73.06	30.69	24.09
1986	47.74	49.92	44.91	36.23	43.97	18.47	12.51
1987	53.22	56.75	52.25	45.36	50.89	21.37	15.40
1988	50.31	50.72	46.10	38.72	46.22	19.41	12.58
1989	59.15	60.78	56.02	40.87	53.28	22.38	15.86
1990	72.13	73.37	67.82	50.99	65.20	27.38	20.03
1991	64.24	64.79	59.81	40.94	56.61	23.78	16.54
1992	60.90	62.78	58.12	41.67	54.81	23.02	15.99
1993	54.85	59.98	55.54	40.22	50.82	21.34	14.25
1994	52.95	57.67	53.22	42.50	50.09	21.04	13.19
1995	55.51	58.15	53.74	47.41	51.63	21.68	14.62
1996	68.29	74.02	69.64	53.78	64.43	27.06	18.46
1997	66.21	62.26	66.81	54.69	62.19	26.12	17.23
1998	52.60	45.00	43.90	28.00	42.38	17.80	10.87
1999	64.50	53.30	53.60	35.40	51.70	21.71	15.56
2000	96.30	88.00	89.60	56.60	82.63	34.70	26.72
2001	88.60	76.30	77.90	47.60	72.60	30.49	21.84
2002	82.80	71.60	71.80	53.00	69.80	29.32	22.51
2003	100.20	87.10	88.20	66.10	85.40	35.87	27.56
2004	128.80	120.80	117.80	68.10	108.88	45.73	36.77
2005	167.00	172.30	172.00	97.10	152.10	63.88	50.28
2006	196.90	196.10	199.10	113.60	176.43	74.10	59.69
2007	218.20	217.10	219.00	135.00	197.33	82.88	66.52

Sources: Petroleum product prices derived by IPAA from Platt's Oilgram Price Report thru 1997. EIA prices used thereafter. Crude oil wellhead prices from EIA.

Notes: Data reflect price trends only, not actual sale prices. Motor gasoline prices represent leaded fuel prior to 1982, and unleaded thereafter.

WHOLESALE PRICES — TOTAL U.S.

# PETROLEUM CONSUMPTION

(mill. bbls.)	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Alabama	97.2	101.6	105.4	103.9	108.1	107.1	117.1	115.3	115.9	115.1
Alaska	45.7	48.6	48.5	50.7	48.7	50.0	58.9	58.7	60.3	57.0
Arizona	88.0	92.9	94.6	95.7	97.8	99.3	108.6	108.7	110.7	109.7
Arkansas	65.2	71.6	73.1	70.4	70.1	69.6	71.7	70.7	70.8	71.2
California	609.9	628.5	654.1	661.7	685.8	701.2	693.1	705.3	714.1	718.3
Colorado	75.0	77.8	83.5	86.9	83.3	86.7	93.7	92.6	96.1	97.8
Connecticut	78.8	83.2	81.2	76.6	70.8	79.8	86.0	82.7	75.0	73.1
Delaware	25.3	25.8	24.9	26.7	26.1	26.6	25.5	26.9	25.1	24.7
Dist.of Columbia	6.2	6.1	6.3	6.1	6.1	5.4	5.6	5.3	4.3	4.2
Florida	339.9	341.4	354.2	352.7	345.4	351.4	382.7	390.1	373.3	361.3
Georgia	183.3	192.6	193.7	193.0	192.5	196.1	206.3	213.3	207.8	202.7
Hawaii	40.5	39.7	40.6	41.5	44.8	46.7	49.1	51.2	51.6	52.9
Idaho	27.6	30.0	30.7	28.6	29.1	25.6	28.8	29.5	30.6	30.6
Illinois	228.6	250.6	248.6	243.0	237.7	243.2	255.7	276.1	265.5	264.3
Indiana	156.9	162.5	164.9	152.1	161.7	166.8	164.6	163.2	163.5	160.7
Iowa	78.8	82.8	82.4	78.8	82.4	76.4	86.5	88.3	90.0	86.3
Kansas	75.8	86.6	79.3	73.7	71.1	83.8	81.8	64.8	66.7	82.6
Kentucky	127.4	132.8	130.8	122.8	133.1	125.7	139.2	138.2	138.7	137.3
Louisiana	248.1	278.9	327.7	325.8	331.5	300.9	310.5	297.9	321.4	302.2
Maine	46.1	48.1	47.1	40.7	41.3	47.3	46.6	47.6	42.9	43.0
Maryland	100.8	105.3	102.1	103.9	100.7	104.7	108.8	112.5	103.4	103.0
Massachusetts	138.0	133.7	138.2	135.4	130.8	133.1	135.5	136.8	124.4	125.8
Michigan	197.4	208.0	201.5	194.0	198.1	193.4	197.4	198.4	187.0	187.5
Minnesota	116.5	122.1	125.6	125.0	126.3	129.2	133.0	134.1	134.1	131.0
Mississippi	84.2	87.5	85.0	89.1	80.4	89.1	88.5	84.2	86.9	85.5
Missouri	139.6	145.5	128.8	136.9	138.5	140.5	142.8	142.2	141.1	141.9
Montana	28.3	30.6	29.7	28.5	29.3	28.6	32.2	33.5	35.5	38.2
Nebraska	45.4	45.9	42.0	41.0	42.9	43.3	44.5	43.2	43.3	43.7
Nevada	40.7	41.9	43.4	45.9	43.8	44.4	48.3	51.2	54.0	53.6
New Hampshire	33.5	34.5	34.0	31.1	32.8	36.6	37.7	35.4	32.1	32.0
New Jersey	212.5	221.5	226.6	232.2	229.5	222.9	229.8	239.9	234.1	247.0
New Mexico	45.3	47.6	45.8	45.3	45.8	46.1	47.8	47.7	50.2	53.8
New York	290.1	294.1	308.7	297.6	287.6	319.0	337.1	331.0	292.6	295.4
North Carolina	174.0	172.5	180.8	177.0	172.8	176.4	184.0	185.8	181.0	182.1
North Dakota	20.8	22.9	22.5	26.4	23.3	22.6	25.0	25.7	25.4	26.4
Ohio	231.9	245.4	242.3	240.2	244.4	251.7	250.7	247.5	248.8	248.5
Oklahoma	86.7	93.5	95.4	106.4	101.6	99.6	98.2	105.6	111.7	104.6
Oregon	69.8	71.4	69.2	65.0	67.6	65.6	67.8	69.3	70.5	70.0
Pennsylvania	248.4	248.2	259.7	264.4	260.2	267.3	276.0	279.2	269.4	266.5
Rhode Island	17.6	17.9	17.8	18.3	18.0	18.6	18.1	17.9	17.2	16.9
South Carolina	84.9	85.6	88.5	95.1	94.9	97.4	112.3	108.1	109.2	106.2
South Dakota	20.9	21.4	22.1	20.9	22.7	21.3	21.6	22.4	22.1	22.7
Tennessee	125.3	129.2	130.8	136.8	142.7	144.6	148.8	153.1	152.6	151.4
Texas	1,162.6	1,152.1	1,125.0	1,113.7	1,151.0	1,160.7	1,200.1	1,162.5	1,199.2	1,208.0
Utah	45.4	46.8	49.2	48.2	47.6	49.9	50.6	53.0	57.0	55.7
Vermont	15.7	15.7	16.6	17.0	16.2	16.3	17.9	17.3	17.0	16.7
Virginia	153.7	156.7	164.6	168.9	164.2	177.1	189.7	189.9	185.2	186.8
Washington	149.1	153.8	152.6	142.6	136.2	133.6	136.9	141.1	145.9	152.2
West Virginia	40.8	38.8	39.4	48.3	50.2	47.7	53.0	51.9	53.0	52.4
Wisconsin	118.0	126.1	124.9	116.3	117.6	112.2	118.3	117.4	115.7	116.2
Wyoming	23.0	26.3	26.2	28.9	27.8	28.9	28.4	28.9	31.0	31.6
<b>Total U.S.</b>	<b>6,904.8</b>	<b>7,124.6</b>	<b>7,210.6</b>	<b>7,171.8</b>	<b>7,212.9</b>	<b>7,312.2</b>	<b>7,587.6</b>	<b>7,592.8</b>	<b>7,550.9</b>	<b>7,548.3</b>

Source: Energy Information Administration.

# NATURAL GAS CONSUMPTION

(MMcf.)	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Alabama	329,134	337,270	353,614	332,693	379,343	350,345	382,367	353,156	391,093	418,545
Alaska	434,871	422,816	427,288	408,960	419,131	414,234	406,319	432,972	373,850	369,967
Arizona	158,355	165,076	205,235	240,812	250,734	272,921	349,622	321,584	358,069	393,039
Arkansas	266,485	252,853	251,329	227,943	242,325	246,916	215,124	213,609	233,868	226,437
California	2,309,883	2,339,521	2,508,797	2,464,565	2,273,193	2,269,405	2,406,889	2,248,256	2,315,721	2,394,930
Colorado	330,259	333,085	367,920	463,738	459,397	436,253	440,378	470,321	450,832	504,786
Connecticut	131,497	152,237	159,712	146,278	177,587	154,075	162,642	168,067	172,682	180,178
Delaware	40,809	56,013	48,387	50,113	52,216	46,177	48,057	46,904	43,190	47,948
Dist.of Columbia	30,409	32,281	33,468	29,802	32,898	32,814	32,227	32,085	29,049	32,974
Florida	503,844	559,366	541,847	543,143	689,337	689,986	734,178	778,209	891,611	917,245
Georgia	368,579	337,576	413,845	351,109	383,546	379,761	394,986	412,560	420,469	441,099
Hawaii	2,654	3,115	2,841	2,818	2,734	2,732	2,774	2,795	2,783	2,850
Idaho	69,277	70,672	72,697	80,279	71,481	69,868	75,335	74,540	75,709	81,943
Illinois	957,254	1,004,281	1,030,604	951,616	1,049,878	998,486	953,207	969,642	893,997	965,756
Indiana	521,748	556,932	570,558	501,711	539,034	527,037	526,701	531,111	496,303	535,805
Iowa	232,057	230,691	232,565	224,336	226,457	230,161	226,819	241,340	238,454	259,286
Kansas	326,674	302,932	312,369	272,500	304,992	281,346	256,779	255,123	264,253	286,427
Kentucky	205,129	218,399	225,168	208,974	227,920	223,226	225,470	234,080	211,049	229,801
Louisiana	1,569,190	1,495,478	1,536,725	1,219,013	1,341,444	1,233,505	1,281,428	1,254,370	1,217,871	1,290,326
Maine	5,716	6,572	44,779	95,733	101,536	70,832	72,565	57,835	49,605	44,552
Maryland	188,552	196,350	212,133	178,376	196,276	197,024	194,725	202,509	182,294	201,078
Massachusetts	358,846	344,790	343,314	349,103	393,194	403,991	372,532	378,068	370,664	408,758
Michigan	876,444	951,143	963,136	906,001	966,354	924,819	916,629	913,827	803,336	828,779
Minnesota	330,513	344,591	362,025	340,911	371,583	371,261	359,898	367,825	352,570	388,705
Mississippi	241,342	306,733	300,652	332,589	343,890	265,842	282,051	301,663	307,305	364,005
Missouri	258,652	265,798	284,763	283,793	275,629	262,529	263,945	268,040	252,697	272,405
Montana	59,840	62,129	67,955	65,051	69,532	68,473	66,829	68,355	73,879	73,822
Nebraska	130,730	121,487	126,962	121,984	120,333	118,922	115,011	119,070	129,885	143,827
Nevada	148,539	154,689	189,170	176,835	176,596	185,846	214,984	227,149	249,608	254,464
New Hampshire	19,127	20,313	24,950	23,398	24,901	54,147	61,172	70,484	62,549	62,133
New Jersey	679,619	715,630	605,275	564,923	598,602	612,890	620,806	602,388	547,206	619,053
New Mexico	245,823	236,264	266,469	266,283	235,098	221,021	223,575	220,717	223,636	233,951
New York	1,232,473	1,274,162	1,244,746	1,171,898	1,199,632	1,101,618	1,098,056	1,080,215	1,097,160	1,190,341
North Carolina	214,092	217,159	233,714	207,108	235,376	218,642	224,796	229,715	223,032	237,364
North Dakota	49,541	56,418	56,528	60,819	66,726	60,907	59,986	53,050	53,336	60,211
Ohio	811,384	841,966	890,962	804,243	830,955	848,388	825,753	825,961	742,359	806,466
Oklahoma	575,855	538,329	538,563	491,458	508,298	540,103	538,576	582,536	624,400	658,350
Oregon	229,403	235,009	224,888	229,665	202,164	212,556	234,997	232,562	222,608	251,949
Pennsylvania	644,017	688,740	702,847	634,794	675,583	689,992	696,175	691,591	659,754	752,321
Rhode Island	130,751	118,001	88,419	95,607	87,805	78,456	72,609	80,764	77,204	88,003
South Carolina	159,458	162,926	160,436	141,785	184,803	146,641	163,787	172,032	174,806	173,848
South Dakota	33,042	35,794	37,939	37,077	41,577	43,881	41,679	42,555	40,739	53,938
Tennessee	279,070	278,841	270,658	255,990	255,515	257,315	231,133	230,338	221,626	221,089
Texas	4,205,459	4,009,689	4,421,777	4,252,152	4,303,831	4,050,632	3,908,243	3,503,636	3,432,236	3,515,902
Utah	169,776	159,889	164,557	159,299	163,379	154,125	155,891	160,275	187,399	219,687
Vermont	7,735	8,033	10,426	7,919	8,367	8,400	8,685	8,372	8,056	8,867
Virginia	260,332	276,793	268,770	237,853	258,202	262,970	277,434	299,746	274,175	319,935
Washington	290,229	287,302	286,653	312,114	233,716	249,599	262,485	264,754	263,395	272,637
West Virginia	142,860	139,961	147,854	141,090	146,455	126,986	122,267	117,136	113,084	114,280
Wisconsin	368,022	380,560	393,601	359,784	385,310	394,711	383,316	410,250	372,462	398,369
Wyoming	109,188	96,726	101,314	98,569	112,872	115,358	107,060	108,314	108,481	113,266
<b>Total U.S.</b>	<b>22,245,956</b>	<b>22,405,151</b>	<b>23,333,121</b>	<b>22,238,624</b>	<b>23,007,017</b>	<b>22,276,502</b>	<b>22,388,975</b>	<b>22,010,596</b>	<b>21,684,641</b>	<b>23,047,229</b>

Source: Energy Information Administration. Total Consumption - includes Lease & Plant Fuel and Pipeline and Distribution Use.

# INDUSTRY EMPLOYMENT-2007

State	Mining	Refining		Transportation			Wholesale	Retail	Total
	Oil & Gas Extraction	Petroleum Refining	Oils & Greases	Pipelines, Except Gas	Pipeline Construction	Gas Distribution	Petroleum Products	Gasoline Stations	Industry
Alabama	2,071	314	649	211	1,154	3,124	3,141	18,992	29,656
Alaska	11,737	ND	417	ND	368	ND	1,418	1,790	15,730
Arizona	310	ND	324	ND	947	250	2,073	16,869	20,773
Arkansas	4,772	496	485	191	614	1,568	2,299	12,395	22,820
California	19,174	12,932	903	2,768	8,337	1,235	13,257	53,475	112,081
Colorado	19,644	522	64	39	2,819	1,869	2,314	12,826	40,097
Connecticut	25	ND	335	158	293	1,302	5,295	6,283	13,691
Delaware	35	ND	ND	ND	76	ND	717	2,540	3,368
Dist. of Columbia	ND	ND	68	ND	ND	ND	ND	460	528
Florida	1,455	97	326	159	1,036	1,852	6,704	40,191	51,820
Georgia	354	105	189	144	1,495	1,882	4,275	29,002	37,446
Hawaii	16	ND	ND	ND	86	ND	496	2,606	3,204
Idaho	121	ND	ND	ND	192	ND	891	5,503	6,707
Illinois	2,649	2,883	1,616	494	1,154	5,400	5,616	26,810	46,622
Indiana	512	ND	3,444	229	1,150	3,204	3,590	23,398	35,527
Iowa	ND	ND	307	103	360	820	1,732	17,923	21,245
Kansas	8,424	1,643	288	423	1,403	2,154	2,032	10,187	26,554
Kentucky	2,419	719	413	953	1,014	792	3,134	18,782	28,226
Louisiana	47,260	9,395	1,157	651	16,432	3,362	4,043	18,340	100,640
Maine	16	ND	372	ND	58	75	4,133	7,607	12,261
Maryland	747	ND	868	ND	793	678	3,497	10,068	16,651
Massachusetts	109	ND	1,035	ND	286	2,844	7,064	11,723	23,061
Michigan	2,603	398	736	143	1,306	4,046	5,074	24,589	38,895
Minnesota	851	ND	2,370	148	1,165	1,845	2,910	23,023	32,312
Mississippi	5,480	1,815	138	295	1,294	1,206	2,323	15,891	28,442
Missouri	94	98	393	145	405	3,305	4,174	25,377	33,991
Montana	2,752	ND	975	129	461	625	990	5,271	11,203
Nebraska	249	ND	122	38	860	1,542	1,243	9,006	13,060
Nevada	182	ND	217	ND	681	23	787	8,563	10,453
New Hampshire	45	ND	207	ND	ND	199	2,802	5,120	8,373
New Jersey	364	2,544	552	148	1,214	3,704	5,953	15,493	29,972
New Mexico	15,185	ND	736	119	2,070	1,609	1,816	7,922	29,457
New York	1,296	31	420	111	1,520	4,099	13,574	28,685	49,736
North Carolina	658	133	188	135	1,154	2,116	6,689	28,642	39,715
North Dakota	3,522	ND	ND	95	262	156	1,612	4,024	9,671
Ohio	5,162	1,561	730	623	1,394	3,793	5,759	34,576	53,598
Oklahoma	44,694	1,418	475	1,790	1,968	3,286	11,316	13,570	78,517
Oregon	46	ND	430	ND	336	ND	1,768	10,872	13,452
Pennsylvania	6,151	2,424	2,578	373	2,043	4,978	11,337	36,134	66,018
Rhode Island	ND	ND	ND	ND	63	ND	1,530	1,871	3,464
South Carolina	260	15	113	ND	184	902	2,321	17,916	21,711
South Dakota	70	ND	13	61	55	220	1,269	5,811	7,499
Tennessee	637	463	57	30	696	2,221	3,524	23,841	31,469
Texas	201,991	21,238	779	4,105	26,595	16,347	55,244	68,019	394,418
Utah	5,793	883	39	44	1,042	1,138	1,254	10,067	20,260
Vermont	ND	ND	ND	ND	ND	ND	1,616	3,924	5,540
Virginia	1,579	ND	914	383	1,616	1,564	4,889	33,892	44,837
Washington	180	1,893	86	152	1,181	1,262	3,350	14,016	22,120
West Virginia	5,193	340	547	1,420	965	917	1,015	9,254	19,651
Wisconsin	93	ND	118	216	1,437	812	3,409	23,779	29,864
Wyoming	17,837	928	135	195	5,046	766	774	4,143	30,028
<b>Total U.S.</b>	<b>446,512</b>	<b>72,337</b>	<b>15,209</b>	<b>13,784</b>	<b>97,114</b>	<b>142,372</b>	<b>248,734</b>	<b>861,885</b>	<b>1,897,947</b>

Source: State Agencies & Bureau of Labor Statistics Note: Reported data only. N.A.I.C. codes used. ND - Non-Disclosure or not available = not included in Total.

Note: State data differ from the Bureau of Labor Statistics national averages (Total US) due to confidentiality rules. Oilfield Machinery included in Wholesale Petroleum Products. Pipeline Construction and Oilfield Machinery separated out on state pages. State page Refining includes Oil and Greases.

## Data Sources & Notes

The editorial staff gratefully acknowledges the following sources of data that appear on the individual state pages.

Average Production (dry).....	IHS
Average output per producing well..	IHS
Cumulative production (marketed) & Reserves (dry) .....	Energy Information Administration
Cumulative wells drilled .....	IHS & State Data
Cumulative wellhead value.....	Energy Information Administration
Deepest wells drilled.....	IHS & State Data
End-use natural gas prices.....	Energy Information Administration
Federal Leases & Royalties.....	Department of Interior and Minerals Management Service
First and peak production years ...	AIME Statistical Yearbook, World Oil, Oil & Gas Journal, & World Petroleum Report (Note: Marketed production)
Marginal wells & Abandonments...	IHS & IOGCC
Natural gas marketed production ....	Energy Information Administration
Number of employees .....	IPAA survey & Bureau of Labor Statistics
Petroleum reserve position.....	Energy Information Administration
Producing wells .....	IHS & State Data
Rotary drilling rigs.....	Baker Hughes, Inc.
State maps .....	State data and IHS data for producing entities by county
Severance and production taxes..	IPAA survey
Total Production (dry) .....	IHS and Energy Information Administration (marketed gas production)
Wellhead prices and value .....	Energy Information Administration, IPAA, State Data
Wells and footage drilled .....	IHS & State Data
<i>Worldwide rank from BP and World Oil for wells drilled.</i>	

## Abbreviations

bbl.	= barrel
b/d	= barrels per day
Mcf	= thousand cubic feet
MMcf	= million cubic feet
Bcf	= billion cubic feet
Tcf	= trillion cubic feet
BTU	= British Thermal Unit
NGL	= Natural Gas Liquid
LPG	= Liquefied Petroleum Gases
NA	= Data Not Available
ND	= Not Disclosable

## Energy Conversions

One barrel of crude oil:

= 42 gallons
= 5,800,000 BTU of energy
= 5,614 cubic feet of natural gas
= 0.22 ton of bituminous coal

One cubic foot of natural gas:

= 7.48 gallons
= 1,030 BTU of energy
= 0.000178 barrel of crude oil
= 0.00004 ton of bituminous coal

One short ton of bituminous coal:

= 2,000 pounds
= 26,200,000 BTU of energy
= 4.52 barrels of crude oil
= 25,314 cubic feet of natural gas

One metric ton of crude oil:

= 2,204 pounds
= 7.46 barrels of domestic crude oil
= 6.99 barrels of foreign crude oil

One cubic meter of natural gas:

= 35.314 cubic feet
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# GLOSSARY

**Abandonments** - The number of producing wells that have been abandoned during a given time period.

**Artificial Lifting** - Any method used to stimulate the production of crude oil and/or natural gas in excess of the flow resulting under natural reservoir pressures, e.g. pumping, secondary or tertiary recovery.

**Associated Gas** - The combined volume of natural gas which occurs in crude oil reservoirs either as free gas (associated) or as gas in solution with crude oil (dissolved).

**Barrel** - Standard volumetric measure for petroleum, equivalent to 42 U.S. gallons.

**Condensate** - A mixture of liquid hydrocarbons at atmospheric conditions which occur in a gaseous state underground, sometimes known as distillate or natural gasoline.

**Crude Oil** - Hydrocarbons in liquid unprocessed form that vary significantly in properties such as API gravity, viscosity, and sulfur content.

**Development Well** - A crude oil, natural gas or dry hole drilled within an area known to be productive.

**Distillate Fuel Oil** - One of the petroleum fractions produced by conventional distillate, includes fuel oil and diesel fuel.

**Dry Hole** - A completed well which is not productive of crude oil and/or natural gas in commercial quantities.

**Dry Natural Gas** - Natural gas that does not contain dissolved liquid hydrocarbons.

**Exploratory Well** - A crude oil, natural gas, or dry hole drilled to discover a petroleum formation or its limits.

**Gas Well** - An exploratory or development well completed for the production of natural gas.

**Heavy Oil** - A type of high-viscosity crude that may, or may not, naturally flow into a well bore. The limit for heavy oils has been set between 0.1 API gravity and 20.9 API gravity.

**Liquefied Petroleum Gas (LPG)** - Butane, propane, and other light products separated from natural gasoline or crude oil by fractionation or other processes. At atmospheric pressure, it reverts to the gaseous state.

**Marginal Well** - A producing well which pumps or "strips" less than 15 barrels of crude oil or 90 Mcf of natural gas per day.

**Marginal Well Reserves** - The estimated amount of additional crude oil or natural gas which can be recovered by primary means or secondary recovery methods.

**Middle Distillates** - A general classification of petroleum products that includes distillate fuel oil and kerosene.

**Natural Gas** - Hydrocarbons in gaseous form or mixed with crude oil.

**Natural Gas Liquids (NGL)** - Hydrocarbons found with natural gas that are recoverable by condensation or absorption, such as LPG or natural gasoline.

**Natural Gas Marketed Production** - Gross withdrawals of natural gas from production reservoirs, less gas used for reservoir repressuring, nonhydrocarbon gases removed in treating and processing operations, and quantities vented and flared.

**Non-associated Gas** - Natural gas not in contact with significant quantities of crude oil in a reservoir.

**Oil Well** - An exploratory or development well completed for the production of crude oil.

**Petroleum** - Includes in its broadest sense the entire spectrum of hydrocarbons - gaseous, liquid, and solid.

**Pipeline** - A line of tubes with pumping machinery that transports crude oil or natural gas from the wellhead to the storage tank or petroleum refinery.

**Proved Reserves** - The estimated quantity of crude oil, natural gas, or NGL that is shown with reasonable certainty to be recoverable from known fields under existing economic and operating conditions.

**Residual Fuel Oil** - The heavy, high-viscosity leftover from the refining process, used mainly for industrial purposes.

**Rotary Drilling Rig** - A derrick equipped with modern rotary equipment capable of drilling a bore hole with a bit attached to a rotating column of steel pipe, in contrast to a cable tool rig which drills on the percussion principle.

**Seismic Exploration Activity** - The search for geological structures which are potential petroleum-bearing formations by interpreting data from seismic shocks.

**Severance Tax** - A tax levied by some states on each barrel of crude oil or each thousand cubic feet of natural gas produced.

**Strategic Petroleum Reserve** - Crude oil inventories held in government underground storage for use during periods of supply interruptions.

**Stratigraphic Test** - A hole drilled to gather information about a stratigraphic formation such as the general permeability and porosity of the rocks; includes core tests.

**Well** - A hole drilled to find or produce hydrocarbons, or to provide services related to their production.

**Wet Natural Gas** - Volumes of natural gas remaining after removal of lease condensate, and after exclusion of nonhydrocarbon gases where they occur in sufficient quantity to render the gas unmarketable.

**Wildcat Well** - A type of exploratory well drilled in an unproven area where there has been no previous production.

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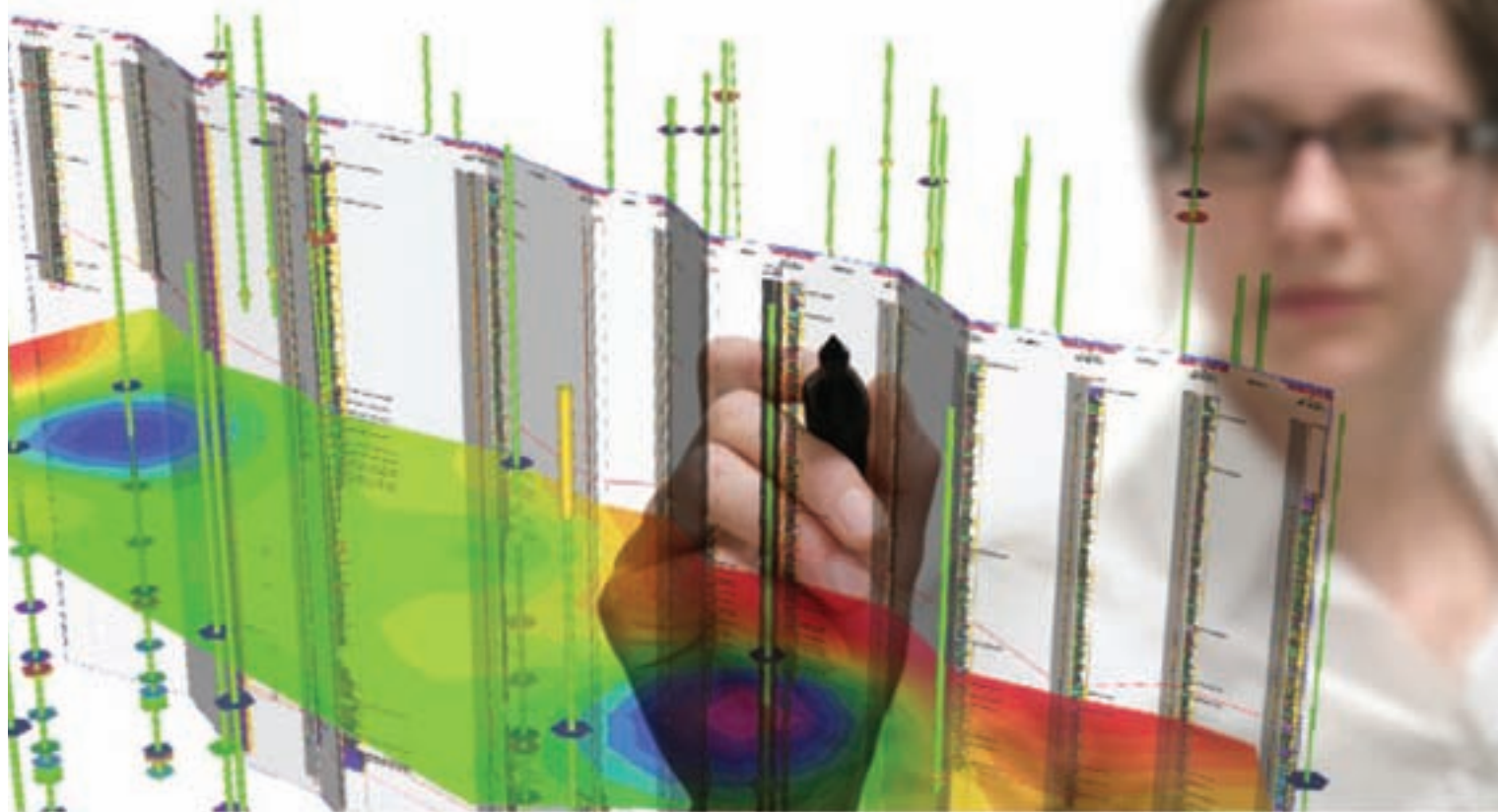
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