TESTIMONY SUBMITTED TO THE HOUSE COMMITTEE ON NATURAL RESOURCES
SUBCOMMITTEE ON ENERGY AND MINERAL RESOURCES
WASHINGTON, D.C.
JUNE 18, 2009

PREPARED BY THE INTERSTATE OIL AND GAS COMPACT COMMISSION
ON BEHALF OF THE NATION'S OIL AND GAS PRODUCING STATES

SUMMARY:

Hydraulic fracturing has been used safely to stimulate oil and gas production in the United States for more than 60 years and is thoroughly regulated by the oil and gas regulatory agencies of the member states of the Interstate Oil and Gas Compact Commission (IOGCC).

Additional study is unnecessary, and in fact, would be a wasteful use of taxpayers' dollars. However, all future studies involving the regulation of oil and natural gas exploration and production must involve leadership by those officials who know it best – state regulators.

Claims that hydraulic fracturing has been linked directly to the contamination of underground sources of drinking water are untrue. If factual information exists to the contrary, the public, media and policymakers are urged to contact the appropriate state officials for further investigation.

Legislators and regulators did not intend to regulate the short-term process of well stimulation by hydraulic fracturing under the U.S. Environmental Protection Agency's requirements for long-term disposal of substances (underground injection control (UIC) program).

Hydraulic fracturing plays a critical role in the development of virtually all unconventional oil and natural gas resources. The technology has significantly increased domestic reserves, especially clean-burning natural gas. Further regulatory burdens are unnecessary, and in fact, would delay the development of vital domestic natural gas resources and increase energy costs to the consumer with no resulting environmental benefit.

NARRATIVE:

A HISTORY OF SUCCESSFUL REGULATION

The IOGCC represents the governors and, by function, the oil and gas regulatory entities of state government. It evolved from the lack of regulatory efforts to curb the waste of oil during exploration and production in the 1930s. Governors of founding states came together to develop model conservation statutes and techniques to prevent the physical

waste of a non-renewable resource.

Those efforts continue today with the organization's increasing focus on environmental protection. Since the early days of the industry, states have been acting individually and collectively to address emerging environmental issues. For example, shortly after the creation of hydraulic fracturing technologies in 1947, states began taking steps to prevent damage, particularly to precious drinking water supplies. These efforts precede by 20 years the creation of the Safe Drinking Water Act (SDWA).

As with every step in the exploration and production process, the process of hydraulic fracturing is regulated by ensuring sound engineering designs and verifying execution in the field. The process requires well bores and stimulations to be custom designed and takes into account the physical and chemical properties of the rock, fluids and the mechanical condition of the well. Wells are designed and constructed to provide protective barriers that prevent water contamination.

However, regulations are not the full measure of environmental protection. Many states have performance measures and operating protocols that go well beyond the letter of the regulation to the heart of environmental protection: prevention. States are quick to solve problems before they worsen and to share solutions with fellow regulators.

For example, the IOGCC has been hosting the operation of the Council of State Regulatory Officials, a roundtable approach of information-sharing that alerts states to trends, and an IOGCC-EPA Task Force that meets regularly to discuss initiatives at the state and federal levels. This long-standing practice by states of focusing on solutions rather than looking for problems that do not exist is precisely why state regulation – rather than a one-size fits all approach – often shows superior results. In short, the work by state regulators to protect the environment in which they live is not to be dismissed as insignificant. These officials have a duty and vested interest in ensuring the job is done right. As one state regulator noted, "I can assure you, we have no higher priority than the protection of our states' water resources."

For your additional information, attached you will find information developed for the IOGCC regarding the history of legal proceedings relative to hydraulic fracturing [Attachment A].

ADDITIONAL STUDIES OF DRINKING WATER CONTAMINATION ARE UNNECESSARY AND WASTEFUL

The fact that state agencies, the primary regulators of oil and gas E&P, have confirmed that there has not been a single instance of underground drinking water contamination resulting from hydraulic fracturing operations seems to have been lost amid a great deal of misinformation and scare tactics.

The IOGCC would prefer to have the record of the states stand on its own as confirmed by studies or surveys by the Ground Water Protection Council, the EPA and the IOGCC. However, some misstatements should be corrected. Some individuals have pointed to the

possibility of failures during the hydraulic fracturing process of as high as 2 percent, resulting in thousands upon thousands of environmental disasters. To reiterate the facts, there has not been percent, .2 percent or.0000002 percent failure rate. The correct failure percentage resulting in USDW contamination is 0 percent. The intentionally misleading use of "what if" numbers is not helpful to the construction of effective energy regulation and simply results in unnecessarily scaring innocent or uninformed individuals.

Other statements popular to cite include cases that result from primary cementing failures, not from the fracturing process.

A 2002 survey of the states by the IOGCC seeking information on instances of hydraulic fracturing problems is attached to this testimony [Attachment B]. Additionally, several states have responded to the IOGCC with additional statements this June, also attached [Attachment C].

Perhaps the definitive study was conducted by the EPA and released after years of research and development in 2004. It is difficult to follow the argument that this study was somehow flawed by the omission of mysteriously missing sources of information or poor science. The agency researched over 200 peer-reviewed publications, interviewed about 50 employees from state or local government agencies and communicated with another 40 citizens who were concerned that hydraulic fracturing impacted their drinking water wells. To repeat the key finding of the EPA's report:

"Based on the information collected and reviewed, EPA has concluded that the injection of hydraulic fracturing fluids into coalbed methane wells poses little or no threat to USDWs and does not justify additional study at this time."

Again, it is the IOGCC's position that these studies speak for themselves and additional searches for problems that do not exist are the ultimate in wasteful government practices. However, all future studies involving the regulation of oil and natural gas exploration and production must involve leadership by those officials who know it best – state regulators.

A more useful approach would be the development, in collaboration with EPA and additional state, federal and other organizations, of an education effort that focuses on the facts related to the practices of hydraulic fracturing. This effort could help policy makers and others make informed decisions on the practice and its contribution to the energy security of the nation.

STATES TAKE PROACTIVE STANCE

The IOGCC recognizes and believes that state programs can and should always seek improvements. In addition, states can and will encourage compliance and continual improvement by well operators and contractors. Of course, human error is a factor in the minerals extraction business as in any enterprise and in certain cases, environmental damage can occur.

But recurring statements that multiple instances of drinking water contamination have resulted from fracturing operations are disturbing. *The IOGCC again encourages <u>any</u>*

official or member of the public or media to provide information to the appropriate state official charged with fully investigating and reporting on incidents. Those instances should be reported and investigated now, and corrected if true. Such actions shouldn't wait for a multi-year federal study.

FRACTURING DOESN'T FIT UNDER UIC PROGRAM

In a resolution [Attachment D] urging Congress not to remove the fracturing exemption from provisions of the SDWA, the IOGCC points out that the process, by its nature a temporary injection-and-recovery technique, should not be lumped in with the handling of materials for permanent disposal. In drafting the SDWA, Congress never intended to regulate short term drilling and production operations such as underground injection under the UIC program. The EPA itself agreed that the differing nature of the hydraulic fracturing process was not envisioned to be regulated under the SDWA.

In a pivotal ruling by the 11th Circuit Court regarding hydraulic fracturing and its regulation, the court did not address the risk of harm associated with the practice; the issue was decided strictly as a definitional finding [Attachment A].

In addition, a growing number of states are following the lead of the IOGCC in urging Congress to preserve the hydraulic fracturing exemption [Attachment E].

ENERGY SECURITY

Finally, let us not forget that America is searching for solutions to ensure a sound energy future. Currently oil and natural gas supply more than 60 percent of the nation's energy. Hydraulic fracturing plays a critical role in the development of virtually all unconventional oil and natural gas resources. According to the National Petroleum Council, unconventional natural gas resources comprise an estimated 30 percent of total natural gas production and "constitute some of the largest components of remaining natural gas resources in the United States."

In fact, a new study by the Potential Gas Committee reports that the nation's estimated natural gas reserves have surged by 35 percent, much of it in shale rocks that hydraulic fracturing has helped unlock.

Texas Railroad Commissioner Victor Carrillo points out in his attached statement [Attachment C], "Regulating hydraulic fracturing as underground injection under the federal Safe Drinking Water Act would impose significant additional costs and regulatory burdens and could ultimately reverse the significant U.S. domestic unconventional gas reserve additions of recent years – substantially harming domestic energy security. Congress should maintain the status quo and let the states continue to responsibly regulate oil and gas activities, including hydraulic fracturing."

CONCLUSION:

The states feel strongly that additional studies and certainly additional regulatory oversight are unnecessary. As documented by regulatory efforts in Alabama where

fracturing falls under the UIC program, the result has been “increased administrative and production costs with no public health or environmental benefit.” [Testimony by David Bolin, Attachment F]

If there are gaps in knowledge or instances believed to be legitimate, the states will be the first to volunteer their participation and services in any study of *anything* more than a “perceived” problem.

Conducting further studies or enacting legislation to address a “problem” that has *never* been documented – contamination of drinking water as a result of hydraulic fracturing – is simply a waste of taxpayers’ money. The IOGCC favors addressing *real* problems.

Submitted by the Interstate Oil and Gas Compact Commission, June 18, 2009

By Gerry Baker, associate executive director

ATTACHMENT A

HISTORY OF LITIGATION CONCERNING HYDRAULIC FRACTURING TO PRODUCE COALBED METHANE WELLS

HISTORY OF LITIGATION CONCERNING HYDRAULIC FRACTURING TO PRODUCE COALBED METHANE

by S. Marvin Rogers
State Oil and Gas Board of Alabama
Chairman, IOGCC Legal and Regulatory Affairs Committee
January 2009

LEAF AND THE HYDRAULIC FRACTURING DECISIONS

INTRODUCTION

Congresswoman Dianna DeGette of Colorado recently introduced legislation that would again place hydraulic fracturing under the federal Safe Drinking water Act and thereby under the jurisdiction of the U.S. EPA. (House Bill H.R. 7231) Further, the issue of hydraulic fracturing is again receiving publicity. The November 2008 edition of *Business Week* addresses hydraulic fracturing. The State of Alabama and the IOGCC have addressed the issue extensively. In this paper, we will review the history of litigation concerning hydraulic fracturing.

I. LEAF Petitions EPA to Withdraw Primacy—1994

In 1994, an organization known as Legal Environmental Assistance Foundation (hereinafter referred to as "LEAF") petitioned EPA to initiate proceedings to withdraw approval of the Alabama UIC program[1]. LEAF alleged that the Alabama program was deficient because it did not regulate hydraulic fracturing activities associated with coalbed methane gas production and the federal Safe Drinking Water Act (hereinafter referred to as "SDWA"). LEAF further alleged that the SDWA required regulation under federal guidelines over hydraulic fracturing operations. In 1995, EPA denied the petition because it determined that hydraulic fracturing did not fall within the definition of "underground injection" under the SDWA. EPA had concluded that methane gas production wells, which are also used for hydraulic fracturing of the coalbeds, are not required to be regulated under the SDWA because the principal function of these wells is not the underground emplacement of fluids; their principal function is to produce coalbed methane gas.

LEAF then petitioned the Eleventh Circuit Court of Appeals for a review of EPA's order. LEAF contended that EPA's interpretation of the regulations was inconsistent with the SDWA. No other party intervened or filed amicus curiae briefs.

[1] Under the federal Safe Drinking Water Act, a state may request US EPA to allow the state to have primary responsibility or "primacy" over underground injection operations.

II. Decision of Eleventh Circuit Court of Appeals; Legal Environmental Assistance Foundation v. U.S. EPA, 118 F.3d 1467 (11th Cir. 1997)[2]

The Court issued the decision of the LEAF v. U.S. EPA in 1997. The Eleventh Circuit agreed with LEAF and concluded that hydraulic fracturing activities constituted "underground injection" under the SDWA. Under the decision, hydraulic fracturing of coalbeds came under the jurisdiction of the federal SDWA.

The State Oil and Gas Board, the State of Louisiana, and others filed amicus curiae briefs requesting rehearing. The Court denied rehearing.

III. Revised Underground Injection Control Programs of State Oil and Gas Board of Alabama

Under the direction of EPA in 1999, the State Oil and Gas Board of Alabama promulgated detailed regulations addressing hydraulic fracturing of coalbeds. The new regulations constituted a revision of Alabama's underground injection control program.

IV. Appeal by LEAF

EPA approved Alabama's revised regulations relating to hydraulic fracturing in January 2000. LEAF appealed the Board's new regulations to the U.S. 11th Circuit Court of Appeals. The Alabama State Oil and Gas Board intervened in the case. The Court allowed two amicus curiae briefs to be filed—one brief filed by IOGCC and a second brief by various industry groups. American Petroleum Institute, Halliburton, Alabama Coalbed Methane Association, Independent Producers Association of America, and The River Gas Corporation (now HighMount Black Warrior Basin, LLC) joined in the industry brief. The case raised a number of issues, which clearly affected the oil and gas industry.

V. Issues

A. **LEAF.**—In the EPA order under appeal, EPA had ruled that the Alabama program addressing hydraulic fracturing was approved under Section 1425 of the federal Safe Drinking Water Act. Section 1425 allows the States discretion and flexibility in

[2] Prior to the LEAF decision, each state oil and gas commission regulated underground injection related to enhanced recovery operations and salt water disposal under federal guidelines. Further, states have "primary responsibility" or "primacy" to regulate the underground injection related to enhanced operations and salt-water disposals under the SDWA. The effect of the LEAF decision was to extend the SDWA to hydraulic fracturing.

regulating underground injection. LEAF argued that EPA's order was incorrect as a matter of law in approving the Alabama program under Section 1425. The statutory question before the Court was whether hydraulic fracturing is related to "secondary and tertiary recovery" of oil and gas. LEAF argued that hydraulic fracturing is not secondary and tertiary recovery; hydraulic fracturing is a technique for primary operations, not secondary and tertiary recovery. LEAF further argued that even if Section 1425 applies, the Alabama program failed because the Alabama program does not prevent endangerment of the underground sources of drinking water. LEAF's final argument was that the SDWA bans any injection (hydraulic fracturing) into USDW.

B. **EPA.**—EPA argued that the SDWA placed EPA in a quandary. The SDWA requires that EPA not issue orders that impede oil and gas, yet the 1997 *LEAF* decision required hydraulic fracturing to be regulated under the SDWA. EPA argued its interpretation of the SDWA is reasonable and should be affirmed.

C. **Board.**—In briefing the case, the Board cited these statements by Dr. Oltz, Alabama State Geologist:

(1) There is no substantiated case where hydraulic fracturing has contaminated underground sources of drinking water.

(2) Alabama has the strictest regulations in the country.

(3) Almost all hydraulic fracturing fluid is recovered to the surface after a hydraulic fracturing operation.

Under Section 1425, the factual question for consideration was whether the Alabama program for regulating hydraulic fracturing constitutes an "effective program to prevent endangerment of underground sources of drinking water."

The Board argued that the Alabama program is strict and complies with Section 1425. The following is a summary of the program:

- provides for detailed review by the Board's administrative staff

- requires a review of logs to ensure the fracture fluid remains in the coalbed fractured
- ensures the coalbed fractured is beneath an impervious stratum
- requires a water well survey
- bans hydraulic fracturing shallower than 300 feet
- requires an operator to certify that the fracture fluid does not contain components that exceed federal primary drinking water standards

D. Oral Argument**.**—The Eleventh Circuit recognized the importance of its decision and granted oral argument. So, counsel for LEAF, EPA, and the State Oil and Gas Board of Alabama argued the case. During oral argument, the Board emphasized that on a practical, common-sense level, acceptance of the LEAF position could bar hydraulic fracturing, thereby preventing the development of coalbed methane resources and the degasification of coal beds for safe mining operations.

VI. Ruling on LEAF II; LEAF v. EPA, State Oil and Gas Board of Alabama, 276 F.3d 1253 (11th Cir. 2001)

On December 21, 2001, the 11th Circuit Court of Appeals ruled that Alabama's UIC program as approved by EPA complies with the Safe Drinking Water Act. 276 F.3d 1253, 1265. Specifically the Court held that (1) Section 1425 of the SDWA applies to hydraulic fracturing of coalbeds, and (2) Alabama's program to regulate hydraulic fracturing of coalbeds complies with Section 1425 of the SDWA. The Court thereby accepted the Board's and EPA's position that the Alabama program for regulating hydraulic fracturing constitutes an "effective program to prevent endangerment of underground sources of drinking water."

The ruling in favor of EPA and Alabama was a crucial ruling. The Court accepted Alabama's program and hydraulic fracturing, which is crucial to coalbed methane operations, would continue.

On a technical regulatory matter of lesser importance, the Court further ruled that EPA's determination that hydraulic fracturing is a "class-II like activity" is inconsistent with the EPA

classification schedule for injection wells. The Court remanded that portion of the case to EPA for further consideration.

On February 2, 2002, LEAF filed a Petition for Rehearing with the Court. The Court denied the Petition for Rehearing.

VII. Petition for Certiorari

On June 12, 2002, LEAF filed a Petition for Certiorari to the U.S. Supreme Court. The Supreme Court denied the Petition for Certiorari.

VIII. Legislation

Since Alabama adopted its hydraulic fracturing regulations, coalbed operators have submitted thousands of hydraulic fracturing proposals and engaged in thousands of hydraulic fracturing operations.

To administer the Alabama program on hydraulic fracturing is expensive, and the State of Alabama passed a fee of $175.00 to be charged to each operator for each coalbed group fractured.

A. **Inhoff-Sessions Bill.**—The Interstate Oil and Gas Compact Commission (hereinafter referred to as "IOGCC") and Board supported legislation amending the SDWA to state that the SDWA does not cover hydraulic fracturing. The Inhoff-Sessions bill was introduced to solve the problem, and the IOGCC adopted a Resolution supporting the bill. The bill, however, did not pass.

   The IOGCC took the position that the States have regulated hydraulic fracturing for over 50 years. State oil and gas regulatory and conservation agencies have experience and personnel to regulate effectively hydraulic fracturing. So, the States are the proper entity to regulate hydraulic fracturing. Coalbed methane resources and oil and gas resources are too valuable to this country to be burdened by unnecessary environmental laws that prevent oil and gas production. Nevertheless, the Inhoff-Sessions Bill did not pass.

B. **2003 Energy Bill.**—The Energy Bill debated in 2003 included provisions amending the SDWA to state that the SDWA would not cover hydraulic fracturing. Although it came close, Congress did not enact the Energy Bill.

IX. EPA Study

In June 2004, EPA conducted and released an extensive study of hydraulic fracturing. The study addressed "the potential for contamination of underground sources of drinking water from the injection of hydraulic fracturing fluids into coalbed methane wells." In the Executive Summary, the report stated: "Based on the information collected and reviewed, EPA has concluded that the injection of hydraulic fracturing fluids into coalbed methane wells poses little threat to USDW." Executive Summary, page ES-1. The report noted that, "the threat posed to USDW by the introduction of some fracturing fluid constituents is reduced significantly by the removal of large quantities of ground water (and injected fracturing fluids) soon after a well has been hydraulically fractured. In fact, coalbed methane production is dependent on the removal of large quantities of ground water. EPA believes that this ground water production, combined with the mitigating effects of dilution and dispersion, adsorption, and potentially biodegradation, minimize the possibility that chemicals included in the fracturing fluids would adversely affect USDWs." Executive Summary, page ES-17 (parenthesis in original).

X. EPA "Determination" on Remanded Issue

LEAF filed a Petition for Writ of Mandamus with the Eleventh Circuit on March 15, 2004. EPA responded by stating that it intended to follow a schedule to issue a "determination" on the issue remanded to EPA. The schedule provided that EPA would issue a preliminary "determination" on April 8, 2004; parties would be provided 30 days for comment and EPA would issue its final "determination" by July 16, 2004.

On April 8, 2004, EPA issued its "determination." EPA ruled that Alabama's compliance with Section 1425 constitutes compliance with the requirements for Class II Wells[3]. The "determination" by EPA was based in part on the study of hydraulic fracturing conducted by EPA in which EPA determined that there is no evidence that hydraulic fracturing poses a threat to drinking water .

[3] EPA stated: SDWA gives Alabama more flexibility in developing a section 1425-approvable Class II program for the hydraulic fracturing of coal beds to produce methane than if it were developing the same program for approval under the criteria in section 1422. Similarly, EPA has more discretion to approve Alabama's revised Class II program relating to coal bed methane production under the criteria in section 1425, because that program does not have to "track" or be "as stringent as" each of the Class II-related requirements of 40 CFR parts 124, 144, 145, and 146. See *40 CFR 145.11(b)(1)*. Because Alabama made a satisfactory demonstration pursuant to section 1425 that its coal bed methane-related hydraulic fracturing program warranted approval, it did all that was required to demonstrate that its program complies with the requirements for Class II wells.

Alabama submitted an Affidavit by Dr. Nick Tew, State Geologist, and a study by Dr. Jack Pashin. Alabama supported the EPA "determination" and stated that extensive hydraulic fracturing of coalbeds has continued without any contamination.

The IOGCC submitted an Affidavit by Christine Hansen and a survey of all oil and gas states indicating that hydraulic fracturing had caused no harm.

An industry coalition submitted a comment stating that regulations should not unnecessarily impede oil and gas production. The coalition comment noted that 85% of natural gas needs are supplied from domestic production with demand increasing, and continued production of natural gas through processes such as hydraulic fracturing ensure the nation's energy security.

On July 16, 2004, EPA issued its final "determination," stating the same as the preliminary determination that Alabama's compliance with Section 1425 constitutes compliance with the requirements for Class II wells.

LEAF did not appeal, bringing the case to a close.

XI. Energy Policy Act of 2005 Exempts Hydraulic Fracturing

In the Energy Policy Act of 2005, Congress finally amended the Safe Drinking Water Act changing the definition of "underground injection" to "exclude . . . the underground injection of fluids or propping agents (other than diesel fuels) pursuant to hydraulic fracturing operations." The effect of the amendment is to exempt hydraulic fracturing from federal law and to place jurisdiction and authority over hydraulic fracturing operations in the states, and the states' oil and gas conservation commission. Hydraulic fracturing operations in Alabama, therefore, are under the jurisdiction and authority of the State Oil and Gas Board of Alabama. Until and unless Congress amends the SDWA, the 2005 Act of Congress exclusion of hydraulic fracturing for the federal SDWA remains the law of the land.

ATTACHMENT B

2002 IOGCC SURVEY OF STATES ON HYDRAULIC FRACTURING

STATES EXPERIENCE WITH HYDRAULIC FRACTURING

A Survey of the Interstate Oil and Gas Compact Commission

July 2002

The Interstate Oil and Gas Compact Commission (IOGCC) has completed a survey of oil and natural gas producing states that provides an understanding of hydraulic fracturing and its role in the completion of oil and natural gas wells in the United States. The survey results are presented in the attached table. A copy of the survey questionnaire is also attached.

Principal findings of this survey reveal that the technique has been in widespread, common use for nearly 60 years – the technique gained its current widespread popularity as a production technique in the 1940s. Approximately 35,000 wells are hydraulically fractured annually in this country with close to one million wells having been hydraulically fractured in the United States since the technique's inception with no documented harm to groundwater. Hydraulic fracturing has been regulated by the states since its inception. A principal focus of state oil and gas regulatory programs is on protecting ground and surface water resources. The survey reveals hydraulic fracturing of natural gas and oil wells is a process that is well understood and well regulated by the petroleum producing states.

Hydraulic fracturing is used in many geological formations in order to make oil and gas flow freely to the well bore. Williams and Meyers' Manual of Oil and Gas Terms defines hydraulic fracturing as "a mechanical method of increasing the permeability of rock, and thus increasing the amount of oil or [natural] gas produced from it. The method employs hydraulic pressure to fracture the rock." Under modern production techniques, hydraulic fracturing fluid (primarily water and sand) is injected under pressure into the rock through perforations in the well bore. The well is then allowed to flow back the injected fluid, leaving the sand to prop open the fractures in the rock. In a typical well, approximately eighty percent of the injected fluid is returned to the surface within a short period after fracturing, with an additional fifteen to twenty percent recovered through production. The injected sand material is left in the rock to create the pathway for the oil and/or natural gas to flow.

The IOGCC represents the governors of 37 states – 30 member and seven associate states – that produce virtually all the domestic oil and natural gas in the United States. The IOGCC's mission is to promote the conservation and efficient recovery of domestic oil and natural gas resources, while protecting health, safety and the environment.

STATES' EXPERIENCE WITH FRACTURING

SURVEY QUESTIONAIRRE

1. How long has your state regulated oil and gas production?
2. Is hydraulic fracturing utilized in your state?
3. If so, for how long? (in years/or year date)
4. If so, for what type of wells? Ie. oil, gas, natural gas from coal seams
5. Approximately how many wells are fractured annually in your state?
6. How many total wells have been fractured in your state since the use of this technology began?
7. What percentage of the wells in your state are fraced?
8. Has there been an instance of harm to groundwater in your state from the practice of fracturing?

If exact data unknown to the state contact, estimates are acceptable.

SURVEY OF STATES RE: FRACTURING

STATE	YR STATE BEGAN REG.	FRACTURING DONE IN STATE?	HOW LONG FRACTURING?	TYPE OF WELLS	APP. WELLS FRACKED ANNUALLY	APP. WELLS FRACTURED IN STATE TOTAL	% OF WELLS FRACKED	HARM ?
ALABAMA	1945	**YES**	1945	G,O,CSNG	285	5300	85%	**NO**
ALASKA	1958	**YES**	1981	G,O	55	1400	40%	**NO**
ARKANSAS	1939	**YES**	1980s	G,CSNG	150	N/A	75%	**NO**
CALIFORNIA	1915	**YES**	1970s	O,G	500	15,000	15%	**NO**
COLORADO	1951	**YES**	1980s	G,O,CSNG	1500	20,000	99%	**NO**
ILLINOIS	1939	**YES**	1950s	O	1,000	30 to 50,000	30%	**NO**
INDIANA	1947	**YES**	1950s	O,G	1,000	20,562	95%	**NO**
KANSAS	1933	**YES**	1960s	O,G,CSNG	900	50,000	40%	**NO**
KENTUCKY	1960	**YES**	1960s	G	1,000	30,000	50%	**NO**
LOUISIANA	1920s	**YES**	1960s	O,G	258	36,000	30%	**NO**
MICHIGAN	1927	**YES**	1970s	O,G	400	9,000	90%	**NO**
MISSISSIPPI	1939	**YES**	1960s	G	70	2 to 3,000	35%	**NO**
MONTANA	1954	**YES**	1950s	O,G	10	4,000	66%	**NO**
NEBRASKA	1959	**YES**	1950s	O,G	200	3,500	80%	**NO**
NEVADA	1954	**YES**	1980s	O	10	50	5%	**NO**
NEW MEXICO	1935	**YES**	1950s	O,G,CSNG	1,000	30,000	90%	**NO**
NEW YORK	1879	**YES**	1962	O,G	100	8,000	85%	**NO**
NORTH DAKOTA	1945	**YES**	1950s	O,G	15	290	10%	**NO**
OHIO	1965	**YES**	1950s	O,G	550	67,000	81%	**NO**
OKLAHOMA	1915	**YES**	1950s	O,G	1,150	58,000	60%	**NO**
PENNSYLVANIA	Pre-1900	**YES**	1950s	O,G,CSNG	2,000	118,000	99.9%	**NO**
SOUTH DAKOTA	1943	**YES**	1960s	O,G	10	195	90%	**NO**
TENNESSEE	1969	**YES**	1969	O,G	N/A	N/A	N/A	**NO**
TEXAS	1919	**YES**	1950s	O,G	20,220	361,000	50%	**NO**
UTAH	1955	**YES**	1970s	G,O	480	7,000	80%	**NO**
VIRGINIA	1950	**YES**	1970s	G,CSNG	300	3,000	100%	**NO**
WEST VIRGINIA	1929	**YES**	1960s	O,G,CSNG	1,000	25,000	95%	**NO**
WYOMING	1951	**YES**	1950s	O,G	500	25 to 30,000	66%	**NO**
				TOTALS:	**34,663**	**948,597**	**56.3%**	

Types of wells: G=Natural Gas, O=Oil, CSNG=Natural gas from coal seams N/A = Specific numbers not available.

ATTACHMENT C

2009 STATE REGULATORY STATEMENTS ON HYDRAULIC FRACTURING

REGULATORY STATEMENTS ON HYDRAULIC FRACTURING SUBMITTED BY THE STATES JUNE 2009

The following statements were issued by state regulators for the record related to hydraulic fracturing in their states. Statements have been compiled for this document.

ALABAMA:

Nick Tew, Ph.D., P.G.
Alabama State Geologist & Oil and Gas Supervisor
President, Association of American State Geologists

There have been no documented cases of drinking water contamination that have resulted from hydraulic fracturing operations to stimulate oil and gas wells in the State of Alabama.

The U.S. Environmental Protection Agency (EPA) approved the State Oil and Gas Board of Alabama's (Board) Class II Underground Injection Control (UIC) Program in August 1982, pursuant to Section 1425 of the Safe Drinking Water Act (SDWA). This approval was made after EPA determined that the Board's program accomplished the objectives of the SDWA, that is, the protection of underground sources of drinking water. Obtaining primacy for the Class II UIC Program, however, was not the beginning of the Board's ground-water protection programs. These programs, which include the regulation and approval of hydraulic fracturing operations, have been continuously and actively implemented since the Board was established in 1945, pursuant to its mission and legislative mandates.

The State of Alabama, acting through the Board, has a vested interest in protecting its drinking water sources and has adequate rules and regulations, as well as statutory mandates, to protect these sources from all oil and gas operations, including hydraulic fracturing. The fact that there has been no documented case of contamination from these operations, including hydraulic fracturing, is strong evidence of effective regulation of the industry by the Board. In our view, additional federal regulations will not provide any greater level of protection for our drinking water sources than is currently being provided.

ALASKA:

Cathy Foerster
Commissioner
Alaska Oil and Gas Conservation Commission

There have been no verified cases of harm to ground water in the State of Alaska as a result of hydraulic fracturing.

State regulations already exist in Alaska to protect fresh water sources. Current well construction standards used in Alaska (as required by Alaska Oil and Gas Conservation Commission statutes

and regulations) properly protect fresh drinking waters. Surface casing is always set well below fresh waters and cemented to surface. This includes both injectors and producers as the casing/cementing programs are essentially the same in both types of wells. There are additional casings installed in wells as well as tubing which ultimately connects the reservoir to the surface. The AOGCC requires rigorous testing to demonstrate the effectiveness of these barriers protecting fresh water sources.

By passing this legislation [FRAC Act] it is probable that every oil and gas well within the State of Alaska will come under EPA jurisdiction. EPA will then likely set redundant construction guidelines and testing standards that will merely create duplicate reporting and testing requirements with no benefit to the environment. Additional government employees will be required to monitor the programs, causing further waste of taxpayer dollars.

Material safety data sheets for all materials used in oil and gas operations are required to be maintained on location by Hazard Communication Standards of OSHA. Therefore, requiring such data in the FRAC bill is, again, merely duplicate effort with and accomplishes nothing new.

COLORADO:

David Neslin
Director
Colorado Oil and Gas Conservation Commission

To the knowledge of the Colorado Oil and Gas Conservation Commission staff, there has been no verified instance of harm to groundwater caused by hydraulic fracturing in Colorado.

INDIANA:

Herschel McDivitt
Director
Indiana Department of Natural Resources

There have been no instances where the Division of Oil and Gas has verified that harm to groundwater has ever been found to be the result of hydraulic fracturing in Indiana. In fact, we are unaware of any allegations that hydraulic fracturing may be the cause of or may have been a contributing factor to an adverse impact to groundwater in Indiana.

The Division of Oil and Gas is the sole agency responsible for overseeing all aspects of oil and gas production operations as directed under Indiana's Oil and Gas Act. Additionally, the Division of Oil and Gas has been granted primacy by the U.S. Environmental Protection Agency, to implement the Underground Injection Control (UIC) Program for Class II wells in Indiana under the Safe Drinking Water Act.

KENTUCKY:

Kim Collings, EEC
Director
Kentucky Division of Oil and Gas

In Kentucky, there have been alleged contaminations from citizen complaints but nothing that can be substantiated, in every case the well had surface casing cemented to surface and production casing cemented.

LOUISIANA:

James Welsh
Commissioner of Conservation
Louisiana Department of Natural Resources

The Louisiana Office of Conservation is unaware of any instance of harm to groundwater in the State of Louisiana caused by the practice of hydraulic fracturing. My office is statutorily responsible for regulation of the oil and gas industry in Louisiana, including completion technology such as hydraulic fracturing, underground injection and disposal of oilfield waste operations, and management of the major aquifers in the State of Louisiana.

MICHIGAN:

Harold Fitch
Director, Office of Geological Survey
Department of Environmental Quality

My agency, the Office of Geological Survey (OGS) of the Department of Environmental Quality, regulates oil and gas exploration and production in Michigan. The OGS issues permits for oil and gas wells and monitors all aspects of well drilling, completion, production, and plugging operations, including hydraulic fracturing.

Hydraulic fracturing has been utilized extensively for many years in Michigan, in both deep formations and in the relatively shallow Antrim Shale formation. There are about 9,900 Antrim wells in Michigan producing natural gas at depths of 500 to 2000 feet. Hydraulic fracturing has been used in virtually every Antrim well.

There is no indication that hydraulic fracturing has ever caused damage to ground water or other resources in Michigan. In fact, the OGS has never received a complaint or allegation that hydraulic fracturing has impacted groundwater in any way.

OKLAHOMA:

Lori Wrotenbery
Director, Oil and Gas Conservation Division
Oklahoma Corporation Commission

You asked whether there has been a verified instance of harm to groundwater in our state from the practice of hydraulic fracturing. The answer in no. We have no documentation of such an instance. Furthermore, I have consulted the senior staffs of our Pollution Abatement Department, Field Operations Department, and Technical Services Department, and they have no recollection of having ever received a report, complaint, or allegation of such an instance. We also contacted the senior staffs of the Oklahoma Department of Environmental Quality, who likewise, have no such knowledge or information.

While there have been incidents of groundwater contamination associated with oil and gas drilling and production operations in the State of Oklahoma, none of the documented incidents have been associated with hydraulic fracturing. Our agency has been regulating oil and gas drilling and production operations in the state for over 90 years. Tens of thousands of hydraulic fracturing operations have been conducted in the state in the last 60 years. Had hydraulic fracturing caused harm to groundwater in our state in anything other than a rare and isolated instance, we are confident that we would have identified that harm in the course of our surveillance of drilling and production practices and our investigation of groundwater contamination incidents.

TENNESSEE:

Paul Schmierbach
Manager
Tennessee Department of Environmental Conservation

We have had no reports of well damage due to fracking.

TEXAS:

Victor G. Carrillo
Chairman
Railroad Commission of Texas

The practice of reservoir stimulation by hydraulic fracturing has been used safely in Texas for over six decades in tens of thousands of wells across the state.

Recently in his introductory Statement for the Record (June 9, 2009) of the Fracturing Responsibility and Awareness of Chemicals (FRAC) Act, Senator Robert Casey stated:

> "Now, the oil and gas industry would have you believe that there is no threat to drinking water from hydraulic fracturing. But the fact is we are already seeing cases in Pennsylvania, Colorado, Virginia, West Virginia, Alabama, Wyoming, Ohio, Arkansas, Utah, Texas, and New Mexico where residents have become ill or groundwater has become contaminated after hydraulic fracturing operations began in the area."

This statement perpetuates the misconception that there are many surface or groundwater contamination cases in Texas and other states due to hydraulic fracturing. This is not true and here are the facts: Though hydraulic fracturing has been used for over 60 years in Texas, our Railroad Commission records ***do not reflect a single documented surface or groundwater contamination case associated with hydraulic fracturing***.

Hydraulic fracturing plays a key role in the development of unconventional gas resources in Texas. As of this year, over 11,000 gas wells have been completed - and hydraulically fractured - in the Newark East (Barnett Shale) Field, one of the nation's largest and most active natural gas fields. Since 2000, over 5 Tcf (trillion cubic feet) of gas has been produced from this one reservoir and Barnett Shale production currently contributes over 20% of total Texas natural gas production (over 7 Tcf in 2008 – more than a third of total U.S. marketed production). While the volume of gas-in-place in the Barnett Shale is estimated to be over 27 Tcf, conventional recovery of the gas is difficult because of the shale's low permeability. The remarkable success of the Barnett Shale results in large part from the use of horizontal drilling coupled with hydraulic fracturing. Even with this intense activity, there are no known instances of ongoing surface or groundwater contamination in the Barnett Shale play.

Regulating oil and gas exploration and production activities, including hydraulic fracturing, has traditionally been the province of the states, which have had effective programs in place for decades. Regulating hydraulic fracturing as underground injection under the federal Safe Drinking Water Act would impose significant additional costs and regulatory burdens and could ultimately reverse the significant U.S. domestic unconventional gas reserve additions of recent years – substantially harming domestic energy security. Congress should maintain the status quo and let the states continue to responsibly regulate oil and gas activities, including hydraulic fracturing.

In summary, I am aware of no verified instance of harm to groundwater in Texas from the decades long practice of hydraulic fracturing.

SOUTH DAKOTA:

Fred Steece
Oil and Gas Supervisor
Department of Environment and Natural Resource

Oil and gas wells have been hydraulically fractured, "fracked," in South Dakota since oil was discovered in 1954 and since gas was discovered in 1970. South Dakota has had rules in place, dating back to the 1940's, that require sufficient surface casing and cement to be installed in

wells to protect ground water supplies in the state's oil fields. Producing wells are required to have production casing and cement, and tubing with packers installed. The casing, tubing, and cement are all designed to protect drinking waters of the state as well as to prevent commingling of water and oil and gas in the subsurface. In the 41 years that I have supervised oil and gas exploration, production and development in South Dakota, no documented case of water well or aquifer damage by the fracking of oil or gas wells, has been brought to my attention. Nor am I aware of any such cases before my time.

WYOMING:

Rick Marvel
Engineering Manager
Wyoming Oil and Gas Conservation Commission

Tom Doll
Oil and Gas Commission Supervisor
Wyoming Oil and Gas Conservation Commission

- No documented cases of groundwater contamination from fracture stimulations in Wyoming.

- No documented cases of groundwater contamination from UIC regulated wells in Wyoming.

- Wyoming took primacy over UIC Class II wells in 1982, currently 4,920 Class II wells permitted.

Wyoming's 2008 activity:

- Powder River Basin Coalbed Wells – 1,699 new wells, no fracture stimulation.
- Rawlins Area (deeper) Coalbed Wells – 109 new wells, 100% fracture stimulated.
- Statewide Conventional Gas Wells – 1,316 new wells, 100% fracture stimulated – many wells with multi-zone fracture stimulations in each well bore, some staged and some individual fracture stimulations.
- Statewide Oil Wells – 237 new wells, 75% fracture stimulated.

The Wyoming Oil and Gas Commission Rules and Regulations are specific in requiring the operator receive approval prior to performing hydraulic fracturing treatments. The Rules require the operator to provide detailed information regarding the hydraulic fracturing process, to include the source of water and/or trade name fluids, type of proponents, as well as estimated pump pressures. After the treatment is complete the operator is required to provide actual fracturing data in detail and resulting production results.

Under Chapter 3, Section 8 (c) The Application for Permit to Drill or Deepen (Form 1) states…"information shall also be given relative to the drilling plan, together with any other information which may be required by the Supervisor. Where multiple Applications for Permit

to Drill will be sought for several wells proposed to be drilled to the same zone within an area of geologic similarity, approval may be sought from the Supervisor to file a comprehensive drilling plan containing the information required above which will then be referenced on each Application for Permit to Drill." Operators have been informed by Commission staff to include detailed information regarding the hydraulic fraction stimulation process on the Form 1 Application for Permit to Drill.

The Rules also state, in Chapter 3, Section 1 (a) "A written notice of intention to do work or to change plans previously approved on the original APD and/or drilling and completion plan (Chapter 3, Section 8 (c)) must be filed with the Supervisor on the Sundry Notice (Form 4), unless otherwise directed, and must reach the Supervisor and receive his approval before the work is begun. Approval must be sought to acidize, cleanout, flush, fracture, or stimulate a well. The Sundry Notice must include depth to perforations or the openhole interval, the source of water and/or trade name fluids, type proponents, as well as estimated pump pressures. Routine activities that do not affect the integrity of the wellbore or the reservoir, such as pump replacements, do not require a Sundry Notice. The Supervisor may require additional information." Most operators will submit the Sundry Notice Form 4 to provide the specific detail for the hydraulic fracturing treatment even though the general information might have been provided under the Form 1 Application for Permit to Drill.

After the hydraulic fracture treatment is complete, results must be reported to the Supervisor. Chapter 3, Section 12 Well Completion or Recompletion Report and Log (Form 3) state "upon completion or recompletion of a well, stratigraphic test or core hole, or the completion of any remedial work such as plugging back or drilling deeper, acidizing, shooting, formation fracturing, squeezing operations, setting a liner, gun perforating, or other similar operations not specifically covered herein, a report on the operation shall be filed with the Supervisor. Such report shall present a detailed account of the work done and the manner in which such work was performed; the daily production of the oil, gas, and water both prior to and after the operation; the size and depth of perforations; the quantity of sand, crude, chemical, or other materials employed in the operation and any other pertinent information of operations which affect the original status of the well and are not specifically covered herein."

ATTACHMENT D

2009 IOGCC RESOLUTION ON HYDRAULIC FRACTURING

RESOLUTION 09.011

Urging Congress Not To Remove Exemption Of Hydraulic Fracturing From Provisions Of The Safe Drinking Water Act

WHEREAS, the United States Congress passed the Safe Drinking Water Act (42 U.S.C. § 300h) (SDWA) to assure the protection of the nation's drinking water sources; and,

WHEREAS, since the enactment of the SDWA, the EPA had never interpreted hydraulic fracturing as constituting "underground injection" within the SDWA; and,

WHEREAS, the United States 11th Circuit Court of Appeals ruled that hydraulic fracturing constituted "underground injection" under the SDWA (Legal Environmental Assistance Foundation v. United States Environmental Protection Agency (EPA), 118 F3d 1467 (11th Cir. 1997)); and,

WHEREAS, in 2004, EPA published a final report summarizing a study to evaluate the potential threat to underground sources of drinking water (USDWs) from hydraulic fracturing of coalbed methane (CBM) production wells and EPA concluded that "additional or further study is not warranted at this time . . ." and "that the injection of hydraulic fracturing fluids into CBM wells poses minimal threat to USDWs."; and,

WHEREAS, the United States Congress, in the Energy Policy Act of 2005, explicitly exempted hydraulic fracturing from the provisions of the SDWA; and,

WHEREAS, the IOGCC conducted a survey of oil and gas producing states which found that there were no known cases of ground water contamination associated with hydraulic fracturing; and,

WHEREAS, hydraulic fracturing is currently, and has been for decades, a common operation used in exploration and production by the oil and gas industry in all the member states of the Interstate Oil and Gas Compact Commission (IOGCC) without groundwater damage; and,

WHEREAS, approximately 35,000 wells are hydraulically fractured annually in the United States and close to one million wells have been hydraulically fractured in the United States since the technique's inception, with no known harm to groundwater; and,

WHEREAS, the regulation of oil and gas exploration and production activities, including hydraulic fracturing, has traditionally been the province of the states; and,

WHEREAS, the SDWA was never intended to grant to the federal government authority to regulate oil and gas drilling and production operations, such as "hydraulic fracturing," under the Underground Injection Control program; and,

WHEREAS, the member states of the IOGCC have adopted comprehensive laws and regulations to provide for safe operations and to protect the nation's drinking water sources, and have trained personnel to effectively regulate oil and gas exploration and production; and,

WHEREAS, production of coal seam natural gas, natural gas from shale formations and natural gas from tight conventional reservoirs is increasingly important to domestic natural gas supply and will be even more in important in the future; and,

WHEREAS, hydraulic fracturing plays a major role in the development of virtually all unconventional oil and gas resources and, thus, should not be limited in the absence of any evidence that such fracturing has damaged the environment; and,

WHEREAS, regulation of hydraulic fracturing as underground injection under the SDWA would impose significant administrative costs on the state and substantially increase the cost of drilling oil and gas wells with no resulting environmental benefits; and,

WHEREAS, regulation of hydraulic fracturing as underground injection under the SDWA would increase energy costs to the consumer,

NOW, THEREFORE, BE IT RESOLVED, the IOGCC hereby declares its support for maintaining the exemption of hydraulic fracturing from the provisions of the SDWA and urges the Congress of the United States to not pass legislation that removes the exemption for hydraulic fracturing.

ATTACHMENT E

STATE RESOLUTIONS ON HYDRAULIC FRACTURING

Alabama (HJR 254, Enrolled, April 20, 2009)

Louisiana (HCR 38, Enrolled, June 11, 2009)

North Dakota (SCR 4020, Enrolled, March 20, 2009)

Oklahoma (HCR 1012, Enrolled, April 16, 2009)

Utah (SJR 17, Enrolled, March 5, 2009)

Wyoming (SJ 0005, Enrolled, March 2, 2009)

HJR254

108408-2

By Representatives Allen, Buskey, Guin, Scott, McClurkin, Mask and Harper

RFD: Rules

First Read: 03-MAR-09

ENROLLED, House Joint Resolution,

REQUESTING CONGRESS TO PRESERVE THE PRIMACY OF THE STATE OIL AND GAS BOARD OF ALABAMA TO REGULATE HYDRAULIC FRACTURING IN COMPLIANCE WITH DECADES OLD STATE REGULATIONS AND NOT TO ENACT ANY FUTURE LEGISLATION THAT WOULD REMOVE THIS PRIMACY.

WHEREAS, the regulation of oil and gas exploration and production activities, including hydraulic fracturing, has traditionally been the province of the states; and

WHEREAS, approximately 35,000 wells are hydraulically fractured annually in the United States and nearly 1,000,000 wells have been hydraulically fractured in the United States since the technique's inception, with no known harm to groundwater; and

WHEREAS, production of coal seam natural gas, natural gas from shale formations, and natural gas from tight conventional reservoirs is increasingly important to domestic natural gas supply and will be more important in the future; and

WHEREAS, Alabama was a pioneer in both the development of coal seam natural gas and the hydraulic fracturing technology necessary to make production economic; and

WHEREAS, coal seam gas now accounts for about 40 percent of all natural gas produced in Alabama because of successful implementation of hydraulic fracturing; and

WHEREAS, domestic production of natural gas will ensure that the United States continues on the path to energy independence; and

WHEREAS, hydraulic fracturing plays a major role in the development of virtually all unconventional oil and gas resources and, thus, should not be limited in the absence of any evidence that hydraulic fracturing has damaged the environment; and

WHEREAS, the United States Congress passed the Safe Drinking Water Act, 42 U.S.C. § 300h (SDWA) to assure the protection of the nation's drinking water sources; and

WHEREAS, since the enactment of the SDWA, the United States Environmental Protection Agency (EPA) has never interpreted hydraulic fracturing as constituting "underground injection" within the SDWA; and

WHEREAS, in 2004, the EPA published a final report summarizing a study to evaluate the potential threat to underground sources of drinking water (USDWs) from hydraulic fracturing of coalbed methane (CBM) production wells and concluded that "additional or further study is not warranted at this time" and that "the injection of hydraulic fracturing fluids into CBM wells poses minimal threat to USDWs"; and

WHEREAS, the United States Congress, in the Energy Policy Act of 2005, explicitly exempted hydraulic fracturing from the provisions of the SDWA; and

WHEREAS, the Interstate Oil and Gas Compact Commission (IOGCC) conducted a survey of oil and gas producing states and found that there were no known cases of ground water contamination associated with hydraulic fracturing; and

WHEREAS, hydraulic fracturing is currently, and has been for decades, a common operation used in exploration and production by the oil and gas industry in all the member states of the IOGCC without groundwater damage; and

WHEREAS, the SDWA has never intended to grant to the federal government authority to regulate oil and gas drilling and production operations, such as "hydraulic fracturing," under the Underground Injection Control Program; and

WHEREAS, the member states of the IOGCC have adopted comprehensive laws and regulations to provide for safe operations and to protect the nation's drinking water sources, and have trained personnel to effectively regulate oil and gas exploration and production; and

WHEREAS, regulation of hydraulic fracturing as underground injection under the SDWA would impose significant administrative costs on the state and substantially increase the cost of drilling oil and gas wells with no resulting environmental benefits; and

WHEREAS, the United States Department of Energy recently studied the impacts of subjecting hydraulic fracturing to the EPA Underground Injection Control Program and projected it would add an average of more than $100,000 in costs to each new natural gas well requiring fracturing, resulting in billions of dollars in deferred investment, reductions of 35 percent to 50 percent in new drilling for unconventional natural gas, foregone reserve additions of as much as 50 trillion cubic feet of natural gas, and foregone royalties from gas of nearly 50 billion dollars over 25 years; and

WHEREAS, regulation of hydraulic fracturing as underground injection under the SDWA would increase energy costs to the consumer; now therefore,

BE IT RESOLVED BY THE LEGISLATURE OF ALABAMA, BOTH HOUSES THEREOF CONCURRING, That the Alabama Legislature hereby declares its support for the State Oil and Gas Board of Alabama maintaining primacy for the regulation of hydraulic fracturing and urges the Congress of the United States not to pass legislation that would remove state primacy for hydraulic fracturing by regulating the practice under the Safe Drinking Water Act.

BE IT FURTHER RESOLVED, That copies of this resolution be sent forthwith to the President of the United States, to the President of the Senate, and the Speaker of the

House of Representatives of the United States Congress and to the members of the Alabama Congressional Delegation.

Speaker of the House of Representatives

President and Presiding Officer of the Senate

House of Representatives

I hereby certify that the within Act originated in and was adopted by the House 05-MAR-09.

Greg Pappas
Clerk

Senate 07-APR-09 Adopted

ENROLLED

Regular Session, 2009

HOUSE CONCURRENT RESOLUTION 38

BY REPRESENTATIVES HARRISON, BOBBY BADON, BILLIOT, HENRY BURNS, GISCLAIR, HENDERSON, AND ST. GERMAIN

A CONCURRENT RESOLUTION

To memorialize the United States Congress to take such actions as are necessary to preserve and maintain the exemption from the Safe Drinking Water Act for hydraulic fracturing.

WHEREAS, the Safe Drinking Water Act (SDWA) was originally passed by congress in 1974 to protect public health by regulating the nation's public drinking water supply; and

WHEREAS, since the 1974 enactment of the Safe Drinking Water Act, the Environmental Protection Agency (EPA) has never interpreted hydraulic fracturing as constituting "underground injection" within the definitions of the SDWA; and

WHEREAS, in 2004, the EPA published a final report summarizing a study that evaluated the potential threat to underground drinking water sources from hydraulic fracturing of coal bed methane production wells and the EPA concluded that "the injection of hydraulic fracturing fluids into coal bed methane wells poses minimal threat" to underground sources of drinking water and that "additional or further study is not warranted at this time . . ."; and

WHEREAS, in the Energy Policy Act of 2005, the United States Congress explicitly exempted hydraulic fracturing from the provisions of the Safe Drinking Water Act; and

WHEREAS, the Interstate Oil and Gas Compact Commission (IOGCC) conducted a survey of oil and gas producing states which found that there were no known cases of groundwater contamination associated with hydraulic fracturing; and

WHEREAS, hydraulic fracturing is currently, and has been for decades, a common practice used in exploration and production by the oil and gas industry in all IOGCC member states without groundwater damage; and

WHEREAS, approximately thirty-five thousand wells are hydraulically fractured in the United States annually, and close to a million wells have been hydraulically fractured in the United States since the technique's inception, all with no known harm to groundwater; and

WHEREAS, the regulation of oil and gas exploration and production activities, including hydraulic fracturing, has traditionally been the responsibility of the states and the Safe Drinking Water Act was never intended to grant to the federal government authority to regulate oil and gas drilling and production operations, such as "hydraulic fracturing", which is regulated under the Underground Injection Control program; and

WHEREAS, the individual member states of the IOGCC have adopted comprehensive laws and regulations to provide safe operations and to protect the nation's drinking water sources, and have trained personnel to effectively regulate oil and gas exploration and production; and

WHEREAS, production of coal seam natural gas, natural gas from shale formations, and natural gas from tight conventional reservoirs is becoming increasingly important to our domestic natural gas supply and will be even more important in the future; and

WHEREAS, continued and expanded domestic production of natural gas will help ensure that the United States continues on the path to energy independence; and

WHEREAS, hydraulic fracturing plays a major role in the development of virtually all unconventional oil and gas resources and regulation of hydraulic fracturing as underground injection under the SDWA would impose significant administrative costs on the states and substantially increase the cost of drilling oil and gas wells with no resulting environmental benefits; and

WHEREAS, in addition to increasing the costs both to the producers of oil and gas resources and the states for regulation of hydraulic fracturing as underground injection under the SDWA, the costs to the consumer would also increase if hydraulic fracturing was limited or prohibited.

THEREFORE, BE IT RESOLVED that the Legislature of Louisiana does hereby memorialize the United States Congress to take such actions as are necessary to preserve and maintain the exemption from the Safe Drinking Water Act for hydraulic fracturing.

BE IT FURTHER RESOLVED that a copy of this Resolution be transmitted to the presiding officers of the Senate and the House of Representatives of the Congress of the United States of America and to each member of the Louisiana congressional delegation.

SPEAKER OF THE HOUSE OF REPRESENTATIVES

PRESIDENT OF THE SENATE

Sixty-first Legislative Assembly of North Dakota
In Regular Session Commencing Tuesday, January 6, 2009

SENATE CONCURRENT RESOLUTION NO. 4020
(Senators O'Connell, Grindberg, Wardner)
(Representatives Berg, S. Meyer, Skarphol)

A concurrent resolution urging Congress to preserve the exemption of hydraulic fracturing from the provisions of the Safe Drinking Water Act and to not enact legislation that removes the exemption for hydraulic fracturing.

WHEREAS, Congress enacted the Safe Drinking Water Act to ensure the protection of the nation's drinking water sources; and

WHEREAS, since enactment of the Safe Drinking Water Act, the Environmental Protection Agency has never interpreted hydraulic fracturing as constituting "underground injection" under the Safe Drinking Water Act; and

WHEREAS, in 2004 the Environmental Protection Agency published a final report summarizing a study to evaluate the potential threat to underground sources of drinking water from hydraulic fracturing of coalbed methane production wells and the Environmental Protection Agency concluded that "additional or further study is not warranted at this time..." and that "the injection of hydraulic fracturing fluids into coalbed methane wells poses minimal threat to the underground sources of drinking water"; and

WHEREAS, Congress, in the Energy Policy Act of 2005, explicitly exempted hydraulic fracturing from the provisions of the Safe Drinking Water Act; and

WHEREAS, the Interstate Oil and Gas Compact Commission conducted a survey of North Dakota and other oil and gas-producing states which found that there were no known cases of ground water contamination associated with hydraulic fracturing; and

WHEREAS, hydraulic fracturing is currently, and has been for decades, a common operation used in exploration and production by the oil and gas industry in North Dakota and all the member states of the Interstate Oil and Gas Compact Commission; and

WHEREAS, approximately 35,000 wells are hydraulically fractured annually in the United States, and close to one million wells have been hydraulically fractured in the United States since the technique's inception, with no known harm to ground water; and

WHEREAS, the regulation of oil and gas exploration and production activities, including hydraulic fracturing, has traditionally been the province of the states; and

WHEREAS, the success of the Bakken Formation and development of domestic oil and gas resources across the United States has been revitalized by technological advancements which include the ability to fracture and stimulate challenging geological formations, such as the Bakken Formation in North Dakota, and thus should not be limited in the absence of any evidence that such fracturing has damaged the environment; and

WHEREAS, the Safe Drinking Water Act was never intended to grant to the federal government authority to regulate oil and gas drilling and production operations, such as "hydraulic fracturing," under the underground injection control program; and

WHEREAS, North Dakota and other member states of the Interstate Oil and Gas Compact Commission have adopted comprehensive laws and regulations to provide for safe operations and to protect the nation's drinking water sources and have trained personnel to effectively regulate oil and gas exploration and production; and

WHEREAS, domestic production of natural gas will ensure that the United States continues on the path to energy independence; and

WHEREAS, regulation of hydraulic fracturing as underground injection under the Safe Drinking Water Act would impose significant administrative costs on the state, substantially increase the cost of drilling oil and gas wells, and potentially stop the development of our state's valuable natural resources, including the Bakken and other formations with no resulting environmental benefits; and

WHEREAS, regulation of hydraulic fracturing as underground injection under the Safe Drinking Water Act would increase energy costs to the consumer;

NOW, THEREFORE, BE IT RESOLVED BY THE SENATE OF NORTH DAKOTA, THE HOUSE OF REPRESENTATIVES CONCURRING THEREIN:

That the Sixty-first Legislative Assembly urges the Congress of the United States to preserve the exemption of hydraulic fracturing from the provisions of the Safe Drinking Water Act and urges the Congress of the United States not to enact legislation that removes the exemption for hydraulic fracturing; and

BE IT FURTHER RESOLVED, that the Secretary of State forward copies of this resolution to the President of the United States, to the President of the Senate and the Speaker of the House of Representatives of the United States, and to each member of the North Dakota Congressional Delegation.

President of the Senate	Speaker of the House
Secretary of the Senate	Chief Clerk of the House

Filed in this office this _____ day of _____, 2009,

at _____ o'clock _____ M.

Secretary of State

Resolution

ENROLLED HOUSE
CONCURRENT
RESOLUTION NO. 1012

By: Thompson of the House

and

Bingman, Adelson, Aldridge, Anderson, Ballenger, Barrington, Bass, Branan, Brogdon, Brown, Burrage, Coates, Coffee, Corn, Crain, Crutchfield, Easley, Eason McIntyre, Ellis, Ford, Garrison, Gumm, Halligan, Ivester, Johnson (Constance), Johnson (Mike), Jolley, Justice, Lamb, Laster, Leftwich, Lerblance, Marlatt, Mazzei, Myers, Newberry, Nichols, Paddack, Reynolds, Rice, Russell, Schulz, Sparks, Stanislawski, Sweeden, Sykes, Wilson and Wyrick of the Senate

A Concurrent Resolution expressing support for the preservation of the exemption for hydraulic fracturing from the Safe Drinking Water Act; urging Congress not to pass legislation that removes the exemption; and directing distribution

WHEREAS, the United States Congress passed the Safe Drinking Water Act to assure the protection of the nation's drinking water sources; and

WHEREAS, since the enactment of the Safe Drinking Water Act, the United States Environmental Protection Agency has never interpreted hydraulic fracturing as constituting "underground injection" under the Act; and

WHEREAS, in the case of *Legal Environmental Assistance Foundation v. United States Environmental Protection Agency (EPA)*, 118 F3d 1467 (11th Cir. 1997), the United States 11th Circuit Court of Appeals ruled contrary to argument of the United States Environmental Protection Agency that hydraulic fracturing constituted "underground injection" under the Safe Drinking Water Act; and

WHEREAS, in 2004, the Environmental Protection Agency published a final report summarizing a study to evaluate the potential threat to underground sources of drinking water from hydraulic fracturing of coalbed methane production wells and concluded that "additional or further study is not warranted at this time . . ." and "that the injection of hydraulic fracturing fluids into coalbed methane wells poses minimal threat to underground sources of drinking water"; and

WHEREAS, the United States Congress, in the Energy Policy Act of 2005, explicitly exempted hydraulic fracturing from the provisions of the Safe Drinking Water Act; and

WHEREAS, the Interstate Oil and Gas Compact Commission conducted a survey of oil- and gas-producing states and found that there were no known cases of groundwater contamination associated with hydraulic fracturing; and

WHEREAS, hydraulic fracturing is currently, and has been for decades, a common operation used in exploration and production by the oil and gas industry in all the member states of the Interstate Oil and Gas Compact Commission without groundwater damage; and

WHEREAS, approximately 35,000 wells are hydraulically fractured annually in the United States and close to one million wells have been hydraulically fractured in the United States since the inception of the technique, with no known harm to groundwater; and

WHEREAS, the regulation of oil and gas exploration and production activities, including hydraulic fracturing, has traditionally been the province of the states; and

WHEREAS, the Safe Drinking Water Act was never intended to grant to the federal government authority to regulate oil and gas drilling and production operations, such as hydraulic fracturing, under the Underground Injection Control program; and

WHEREAS, the member states of the Interstate Oil and Gas Compact Commission have adopted comprehensive laws and regulations to provide for safe operations and to protect the drinking water sources of the nation, and have trained personnel to effectively regulate oil and gas exploration and production; and

WHEREAS, production of coal-seam natural gas, natural gas from shale formations and natural gas from tight conventional reservoirs is increasingly important to domestic natural gas supply and will be even more important in the future; and

WHEREAS, domestic production of natural gas will ensure that the United States continues on the path to energy independence; and

WHEREAS, hydraulic fracturing plays a major role in the development of virtually all unconventional oil and gas resources and should not be limited in the absence of any evidence that hydraulic fracturing has damaged the environment; and

WHEREAS, regulation of hydraulic fracturing as underground injection under the Safe Drinking Water Act would impose significant administrative costs on the state and substantially increase the cost of drilling oil and gas wells with no resulting environmental benefits; and

WHEREAS, the regulation of hydraulic fracturing as underground injection under the Safe Drinking Water Act would increase energy costs to the consumer.

NOW, THEREFORE, BE IT RESOLVED BY THE HOUSE OF REPRESENTATIVES OF THE 1ST SESSION OF THE 52ND OKLAHOMA LEGISLATURE, THE SENATE CONCURRING THEREIN:

THAT the Oklahoma Legislature hereby declares its support for maintaining the exemption of hydraulic fracturing from the provisions of the Safe Drinking Water Act and urges the Congress of the United States not to pass legislation that removes the exemption for hydraulic fracturing.

THAT a copy of this resolution be distributed to the President of the United States, the President of the United States Senate, the Speaker of the United States House of Representatives, and to each member of the Oklahoma Congressional Delegation.

Adopted by the House of Representatives the 9th day of March, 2009.

Presiding Officer of the House of Representatives

Adopted by the Senate the 14th day of April, 2009.

Presiding Officer of the Senate

OFFICE OF THE SECRETARY OF STATE

Received by the Secretary of State this 16th **day of** April, **20** 09 **at** 12:33 **o'clock** P **M.**

By: M. Susan Lowe

Enrolled Copy **S.J.R. 17**

HYDRAULIC FRACTURING JOINT RESOLUTION

2009 GENERAL SESSION

STATE OF UTAH

Chief Sponsor: David P. Hinkins

House Sponsor: Michael E. Noel

LONG TITLE

General Description:

This joint resolution of the Legislature urges Congress to preserve the exemption for hydraulic fracturing in the Safe Drinking Water Act and to refrain from passing legislation that would remove the hydraulic fracturing exemption.

Highlighted Provisions:

This resolution:

- expresses support for maintaining the exemption of hydraulic fracturing from the provisions of the Safe Drinking Water Act; and
- urges Congress to refrain from passing legislation that would remove the exemption for hydraulic fracturing.

Special Clauses:

None

Be it resolved by the Legislature of the state of Utah:

WHEREAS, the United States Congress passed the Safe Drinking Water Act (Act) to assure the protection of the nation's drinking water sources;

WHEREAS, since the enactment of the Act, the Environmental Protection Agency (EPA) has never interpreted hydraulic fracturing as constituting "underground injection" within the Act;

WHEREAS, in 2004, the EPA published a final report summarizing a study to evaluate the potential threat to underground sources of drinking water from hydraulic fracturing of coal

bed methane production wells and the EPA concluded that "additional or further study is not warranted at this time . . ." and "that the injection of hydraulic fracturing fluids into coal bed methane wells poses minimal threat" to underground sources of drinking water;

WHEREAS, in the Energy Policy Act of 2005, the United States Congress explicitly exempted hydraulic fracturing from the provisions of the Act;

WHEREAS, the Interstate Oil and Gas Compact Commission (IOGCC) conducted a survey of oil and gas producing states which found that there were no known cases of groundwater contamination associated with hydraulic fracturing;

WHEREAS, hydraulic fracturing is currently, and has been for decades, a common operation used in exploration and production by the oil and gas industry in all the member states of the IOGCC without groundwater damage;

WHEREAS, approximately 35,000 wells are hydraulically fractured in the United States annually, and close to 1,000,000 wells have been hydraulically fractured in the United States since the technique's inception, with no known harm to groundwater;

WHEREAS, the regulation of oil and gas exploration and production activities, including hydraulic fracturing, has traditionally been the province of the states;

WHEREAS, the Act was never intended to grant to the federal government authority to regulate oil and gas drilling and production operations, such as "hydraulic fracturing," under the Underground Injection Control program;

WHEREAS, the member states of the IOGCC have adopted comprehensive laws and regulations to provide safe operations and to protect the nation's drinking water sources, and have trained personnel to effectively regulate oil and gas exploration and production;

WHEREAS, production of coal seam natural gas, natural gas from shale formations, and natural gas from tight conventional reservoirs is increasingly important to our domestic natural gas supply and will be even more important in the future;

WHEREAS, domestic production of natural gas will ensure that the United States continues on the path to energy independence;

WHEREAS, hydraulic fracturing plays a major role in the development of virtually all

unconventional oil and gas resources and, in the absence of any evidence that such fracturing has damaged the environment, should not be limited;

WHEREAS, regulation of hydraulic fracturing as underground injection under the Act would impose significant administrative costs on the state and substantially increase the cost of drilling oil and gas wells with no resulting environmental benefits; and

WHEREAS, regulation of hydraulic fracturing as underground injection under the Act would increase energy costs to the consumer:

NOW, THEREFORE, BE IT RESOLVED that the Legislature of the state of Utah expresses support for maintaining the exemption of hydraulic fracturing in the Safe Drinking Water Act and urges the United States Congress to refrain from passing legislation that would remove the exemption for hydraulic fracturing.

BE IT FURTHER RESOLVED that a copy of this resolution be sent to the President of the United States, the Majority Leader of the United States Senate, the Speaker of the United States House of Representatives, and to the members of Utah's congressional delegation.

ORIGINAL SENATE **ENGROSSED**
JOINT RESOLUTION
NO. 0005

ENROLLED JOINT RESOLUTION NO. 1, SENATE

SIXTIETH LEGISLATURE OF THE STATE OF WYOMING
2009 GENERAL SESSION

A JOINT RESOLUTION requesting Congress to preserve the exemption of hydraulic fracturing in the Safe Drinking Water Act and to not pass any future legislation which would remove the exemption.

WHEREAS, the United States Congress passed the Safe Drinking Water Act, 42 U.S.C § 300h (SDWA) to assure the protection of the nation's drinking water sources; and

WHEREAS, since the enactment of the SDWA, the United States Environmental Protection Agency (EPA) has never interpreted hydraulic fracturing as constituting "underground injection" within the SDWA; and

WHEREAS, in 2004, the EPA published a final report summarizing a study to evaluate the potential threat to underground sources of drinking water (USDWs) from hydraulic fracturing of coalbed methane (CBM) production wells and concluded that "additional or further study is not warranted at this time…" and that "the injection of hydraulic fracturing fluids into CBM wells poses minimal threat to USDWs."; and

WHEREAS, the United States Congress, in the Energy Policy Act of 2005, explicitly exempted hydraulic fracturing from the provisions of the SDWA; and

WHEREAS, the Interstate Oil and Gas Compact Commission (IOGCC) conducted a survey of oil and gas producing states and found that there were no known cases of ground water contamination associated with hydraulic fracturing; and

WHEREAS, hydraulic fracturing is currently, and has been for decades, a common operation used in exploration and

production by the oil and gas industry in all the member states of the IOGCC without groundwater damage; and

WHEREAS, approximately thirty-five thousand (35,000) wells are hydraulically fractured annually in the United States and nearly one million (1,000,000) wells have been hydraulically fractured in the United States since the technique's inception, with no known harm to groundwater; and

WHEREAS, the regulation of oil and gas exploration and production activities, including hydraulic fracturing, has traditionally been the province of the states; and

WHEREAS, the SDWA was never intended to grant to the federal government authority to regulate oil and gas drilling and production operations, such as "hydraulic fracturing", under the Underground Injection Control program; and

WHEREAS, the member states of the IOGCC have adopted comprehensive laws and regulations to provide for safe operations and to protect the nation's drinking water sources, and have trained personnel to effectively regulate oil and gas exploration and production; and

WHEREAS, the Wyoming department of environmental quality and Wyoming oil and gas conservation commission provide oversight of operations which protects groundwater; and

WHEREAS, Wyoming promotes its policy of maintaining control over its water resources by enforcing the extensive groundwater protections provided by Wyoming law; and

WHEREAS, production of coal seam natural gas, natural gas from shale formations and natural gas from tight

conventional reservoirs is increasingly important to domestic natural gas supply and will be more important in the future; and

WHEREAS, domestic production of natural gas will ensure that the United States continues on the path to energy independence; and

WHEREAS, hydraulic fracturing plays a major role in the development of virtually all unconventional oil and gas resources and, thus, should not be limited in the absence of any evidence that hydraulic fracturing has damaged the environment; and

WHEREAS, regulation of hydraulic fracturing as underground injection under the SDWA would impose significant administrative costs on the state and substantially increase the cost of drilling oil and gas wells with no resulting environmental benefits; and

WHEREAS, the United States Department of Energy recently studied the impacts of subjecting hydraulic fracturing to the EPA underground injection control program and projected that it would add an average of more than one hundred thousand dollars ($100,000.00) in costs to each new natural gas well that requires fracturing, which would result in billions of dollars in deferred investment, reductions in new drilling of thirty-five percent (35%) to fifty percent (50%), foregone reserve additions of as much as fifty trillion (50,000,000,000,000) cubic feet of natural gas and foregone royalties from natural gas of nearly fifty billion dollars ($50,000,000,000.00) over twenty-five (25) years; and

ORIGINAL SENATE
JOINT RESOLUTION
NO. 0005

ENROLLED JOINT RESOLUTION NO. 1, SENATE

SIXTIETH LEGISLATURE OF THE STATE OF WYOMING
2009 GENERAL SESSION

WHEREAS, regulation of hydraulic fracturing as underground injection under the SDWA would increase energy costs to the consumer.

NOW, THEREFORE, BE IT RESOLVED BY THE MEMBERS OF THE LEGISLATURE OF THE STATE OF WYOMING:

Section 1. That the Wyoming State Legislature hereby declares its support for maintaining the exemption of hydraulic fracturing from the provisions of the SDWA and urges the Congress of the United States not to pass legislation that would remove the exemption for hydraulic fracturing.

ORIGINAL SENATE
JOINT RESOLUTION
NO. 0005

ENROLLED JOINT RESOLUTION NO. 1, SENATE

SIXTIETH LEGISLATURE OF THE STATE OF WYOMING
2009 GENERAL SESSION

Section 2. That the Secretary of State of Wyoming transmit copies of this resolution to the President of the United States, to the President of the Senate and the Speaker of the House of Representatives of the United States Congress and to the Wyoming Congressional Delegation.

(END)

Speaker of the House

President of the Senate

Governor

TIME APPROVED: _____
DATE APPROVED: _____

I hereby certify that this act originated in the Senate.

Chief Clerk

ATTACHMENT F

IOGCC CONGRESSIONAL TESTIMONY ON HYDRAULIC FRACTURING - DAVID BOLIN

OCTOBER 31, 2007

TESTIMONY SUBMITTED TO
THE HOUSE COMMITTEE ON OVERSIGHT AND GOVERNMENT REFORM

BY DAVID E. BOLIN, DEPUTY DIRECTOR OF THE STATE OIL AND GAS BOARD OF ALABAMA

OCTOBER 31, 2007

Good morning Chairman Waxman, Ranking Member Davis, and members of the Committee. My name is David E. Bolin. I am the Deputy Director of the State of Alabama Oil and Gas Board (Board). I am here today representing the Board, the State of Alabama, and other member states of the Interstate Oil and Gas Compact Commission (IOGCC) to express my views as a state regulator regarding the applicability of federal requirements that protect public health and the environment to oil and gas development.

The member states of the IOGCC harvest more than 99% of the oil and natural gas produced onshore in the United States. Formed by Governors in 1935, the IOGCC is a congressionally ratified interstate compact. The organization, the nation's leading advocate for conservation and wise development of domestic petroleum resources, includes 30 member and 8 associate states. The mission of the IOGCC is two-fold: to conserve our nation's oil and gas resources and to protect human health and the environment. Our current chairman is Governor Sarah Palin of Alaska.

I am here today to address two issues arising from the proposition that two provisions of the Energy Policy Act of 2005 (EPACT), Section 327 concerning hydraulic fracturing and Section 328 regarding "storm water", have resulted in harm to drinking water resources in the United States. The evidence would strongly suggest otherwise. What

these two provisions accomplished was the removal of unnecessary administrative burdens on the production of oil and natural gas in the United States – nothing more.

Hydraulic Fracturing

Let me begin by addressing the hydraulic fracturing issue as it is one with which I am intimately familiar. I have been employed by the State of Alabama since July 1979 and have served in technical and supervisory roles with the Board since 1982. I am a Ground Water Hydrologist as well as a Petroleum Engineer by training. My first responsibility with the Board was to develop the State's Class II Underground Injection Control (UIC) Program, pursuant to Section 1425 of the Safe Drinking Water Act (SDWA), in order to obtain primary enforcement responsibility for that program from the U.S. Environmental Protection Agency (EPA). The EPA made a determination that our Program accomplished the objectives of the SDWA, that being to protect underground sources of drinking water from endangerment that could result from improper injection of fluids, and was therefore approved by EPA in August 1982. Since that time, I have had supervisory responsibility for the Class II UIC Program and all other ground water protection programs under the Board's jurisdiction.

Obtaining primacy for the Class II UIC Program, however, was not the beginning of the Board's ground-water protection programs. Such programs, to include the regulation and approval of hydraulic fracturing operations, have been actively implemented continually since the Board was established in 1945. The Board has a staff of geologists and

petroleum engineers to provide technical expertise and to otherwise assist in its duties. In the original act establishing the Board, one of the Board's duties was to "prevent the pollution of fresh water." Protecting drinking water resources is part and parcel of every states' conservation statute: the prevention of waste and the loss of critical natural resources without economic or beneficial use. These mandates to protect drinking water and other natural resources preceded the establishment of the SDWA.

Although the Board in Alabama had been adequately protecting ground water for many years, it elected to apply for primary regulatory authority for this federal program in order to prevent dual regulatory requirements and to eliminate extended time delays associated with federal permitting and decision-making so that oil and gas development could proceed in an orderly manner and to prevent any waste that would otherwise be incurred.

Perhaps the recent history of litigation involving the issue of hydraulic fracturing would be beneficial. In 1994, a Florida-based environmental group, the Legal Environmental Assistance Foundation (LEAF), filed a petition with EPA requesting that EPA take over primacy under the State of Alabama's UIC program. LEAF contended that hydraulic fracturing associated with methane gas production was an injection under the SDWA and therefore should be subject to regulation under the State of Alabama's UIC program.

Following EPA's rejection of its petition in 1995, LEAF filed an appeal with the 11th U.S. Circuit Court of Appeals. In 1997 the 11th Circuit ruled in favor of LEAF holding that hydraulic fracturing constitutes underground injection and therefore must be

regulated as such under the SWDA. The court did not address the issue of risk of harm associated with fracturing or reach any finding of actual harm to drinking water, deciding the issue strictly on the definitional issue. As a result of the court's decision and subsequent rulings, the State of Alabama in 1999 submitted a revised Class II UIC Program package consistent with the Court's rulings and subsequent orders. The EPA approved the Alabama program. A subsequent LEAF effort before the 11th U.S. Circuit arguing that EPA erred in approving the Alabama program failed as did an application for writ of certiorari before the U.S. Supreme Court.

Although EPA had never regarded hydraulic fracturing as an "underground injection" under the SDWA, and so argued before the 11th Circuit Court of Appeals, the EPA decided to let the decision stand and not appeal the court's decision. The result has been higher operating costs for producers of coalbed methane in Alabama and significantly higher administrative costs by the State of Alabama in administering its Class II UIC Program.

Thus the LEAF case launched an effort, based solely on a definitional issue and never any finding of harm, to tighten up the regulation of hydraulic fracturing nationally.

In 1999, the Ground Water Protection Council conducted a survey of state regulatory agencies regarding the inventory and extent of hydraulic fracturing in coalbed methane wells in oil and gas producing states. The principal conclusion of that survey was that

"[t]here are no indications from this survey to suggest that public health is at risk as a result of the hydraulic fracturing of coalbeds used for the production of methane gas."

Additionally, in 2002, the IOGCC completed a survey of oil and natural gas producing states that provides an understanding of hydraulic fracturing and its role in the completion of oil and natural gas wells in the United States. With the committee's permission I would like to submit a copy of this survey for the record. Principal findings of this survey reveal that the technique has been in widespread, common use for nearly 60 years – the technique gained its current widespread popularity as a production technique in the 1940s. Approximately 35,000 wells are hydraulically fractured annually in this country with close to one million wells having been hydraulically fractured in the United States since the technique's inception with no documented harm to groundwater. Hydraulic fracturing has been regulated by the states since its inception. A principal focus of state oil and gas regulatory programs is on protecting ground and surface water resources. The survey reveals hydraulic fracturing of natural gas and oil wells is a process that is well understood and well regulated by the petroleum producing states.

In June 2004, EPA published a final report summarizing a study to evaluate the potential threat to underground sources of drinking water (USDWs) from the injection of hydraulic fracturing fluids into coalbed methane (CBM) production wells. In that report, EPA concluded that "additional or further study is not warranted at this time . . ." and "that the injection of hydraulic fracturing fluids into CBM wells poses minimal threat to USDWs."

EPA further stated in its summary of the study that "[i]n its review of incidents of drinking water well contamination believed to be associated with hydraulic fracturing, EPA found no confirmed cases that are linked to fracturing fluid injection into CBM wells or subsequent underground movement of fracturing fluids. Further, although thousands of CBM wells are fractured annually, EPA did not find confirmed evidence that drinking water wells have been contaminated by hydraulic fracturing fluid injection into CBM wells. Where fluids are injected, EPA believes that groundwater production, combined with mitigating effects of dilution and dispersion, adsorption, and biodegradation, minimize the possibility that chemicals included in fracturing fluids would adversely affect USDWs."

The results of these national surveys and the conclusions reached by EPA, the federal agency responsible for protecting the environment, in its study are quite significant and can not be dismissed. The states, for more than 60 years, even before the SDWA, have done an outstanding job of protecting USDWs. The regulations promulgated and enforced by our Board and our counterparts in other states have been very effective; as evidenced by the surveys and EPA's study, there have been no verified reports of contamination of USDWs by coalbed methane operations.

Alabama is a major oil and gas producing state, presently ranking tenth among the states in gas production and fifteenth in oil production. It has a broad and diverse oil and gas industry that includes onshore and offshore operations, as well as conventional and

unconventional hydrocarbon resources. As such, Alabama serves as an excellent representative for all of the oil and gas producing states.

Coalbed methane has become a major contributor to Alabama's oil and gas industry in last 20 years. Since the establishment of the Board, half of the 15,600 oil and gas wells drilled in Alabama have been coalbed methane wells. Alabama has been a national leader in coalbed methane operations and was the first state to promulgate regulations addressing coalbed methane operations. In fiscal year 2007, 115.2 billion cubic feet of coalbed methane gas was produced in Alabama, representing approximately 40 percent of the state's total gas production. Similar developments in coalbed methane activity are occurring in a number of other states.

Coalbed methane production in Alabama is only economical if the coal seams can be hydraulically fractured. State regulatory agencies have a proven track record with the regulations that are in place now. These regulations have proven sufficient to adequately protect public health and the environment from hydraulic fracturing operations associated with the oil and gas development. Alabama's experience with federal requirements that were generated by the LEAF matter and ultimately required the Board to revise its Class II UIC Program have resulted in substantially increased administrative and production costs with no public health or environmental benefit.

Storm Water Discharge Management

Concerning the "storm water" issue, the issue first arose when EPA proposed a rule regarding storm water discharges when it was discovered that it could have a significant cost impact on the oil and gas industry even though the industry was not the focus of the rulemaking and even though there was no indication of inadequate regulation during construction relating to oil and natural gas production. In response, both the states, through the IOGCC, and industry engaged working groups to examine the matter.

The states, through the IOGCC, created a Storm Water Workgroup whose task was to determine how best meet EPA's needs regarding NPDES storm water management practices and to develop appropriate guidance based on existing state programs. Among other things, the workgroup did not find justification for requiring a storm water discharge permit for small exploration site activities. It found that the Federal NPDES permitting requirements were onerous and inappropriate given the level of risk to the environment. It also found that it was not feasible to develop a single standard to fit the diverse requirements for appropriate storm water discharge management throughout the United States. It concluded that states have been managing discharges at large sites and that there was no indication of a significant threat to the environment from storm water discharges by small exploration and production site activities.

The industry effort resulted in the creation of "Reasonable and Prudent Practices for Stabilization" (RAPPS) as an effective voluntary tool for reducing pollutants in storm

water discharges. The industry group which created RAPPS consisted of environmental representatives from several oil and gas companies and representatives of oil and natural gas industry associations. RAPPS consisted of a compilation of the various operating practices utilized by reasonable and prudent operators in the oil and gas industry to effectively control erosion and sedimentation associated with storm water runoff from areas disturbed by clearing, grading and excavating activities related to site preparation associated oil and gas exploration, production, processing, treatment, and transmission activities.

The bottom line with respect to the storm water issue is that there is no issue. Based on the conclusions of the IOGCC study, the states were already adequately regulating this activity. Supplemented by improved industry practices based on RAPPS, the conclusion can be drawn that there was no adverse environmental impact as a result of the passage of EPACT Section 328.

A study commissioned by the U.S. Department of Energy also showed that there would likely be severe economic impacts on the oil and gas industry had the original EPA rule covered the oil and natural gas industry. It is one thing to have economic impact where an environmental harm is being mitigated; it is another when it is unnecessary.

Conclusion

The point is that America needs its domestic production of oil and natural gas, and regulations at both the federal and state level should focus on that necessary to protect the environment and public health and safety. Superfluous regulation only decreases domestic production and increases foreign imports from countries where there often exist few environmental regulations. Make no mistake, we in the U.S. are the best regulated oil and natural gas regime in the world – no other country operates under stricter environmental, health and safety regulatory oversight than do we.

Elimination of Sections 327 and 328 of EPACT would not make production of oil and natural gas in the United States an iota safer but could substantially increase domestic oil and natural gas production costs and thereby decrease domestic supply.

Thank you for the opportunity to appear here today. If we can provide any additional information, please do not hesitate to ask.