

Alabama lawsuit poses threat to hydraulic fracturing across US

A 10-YEAR-OLD LAWSUIT brought by a Florida environmental law firm has virtually shut down hydraulic fracturing for coalbed methane operations in Alabama, and poses a threat to hydraulic fracturing elsewhere. The ruling by the **US 11th Circuit Court of Appeals** determined that hydraulic fracturing constitutes “underground injection” under the terms of the Safe Drinking Water Act. At press time, the **US Environmental Protection Agency** was under a court-imposed year-end deadline to decide whether to withdraw Alabama’s authority to regulate hydraulic fracturing. If that happens, hydraulic-fracturing activity in the state will come to a complete screeching halt, because EPA has no rules of its own with which to regulate hydraulic fracturing as “underground injection” in the state. The court gave EPA until March 2000 to develop this non-existent body of regulation. These regulations would apply to coalbed methane operations in Alabama only, and not in the 12 other states with similar operations, according to the Coalbed Methane Association of Alabama.

However, the threat looms large over the US oilfield horizon. First, EPA has indicated in public meetings that it would be unfair to apply a standard to Alabama that it did not apply elsewhere. Also, noted IADC Senior Vice President-Government Affairs **Brian T Petty**, writing in *Capital Wirelines* in the November/December **DRILLING CONTRACTOR**, “The court’s decision did not limit itself to coalbed methane. Rather, it made a broad statement that hydraulic fracturing should be regulated as underground injection. This could easily affect other formations, such as tight-gas wells, Devonian-shale wells and oil wells.”

Needless to say, IADC and its allies have responded vociferously to this sequence of events. Democratic Alabama **Gov Don Siegelman** has also weighed into the fray, urging that the state’s burgeoning coalbed methane industry not be capriciously terminated. The IADC Directors

and General Membership Conference, 21-22 Feb in New Orleans, will feature a detailed presentation on this case. Please see p 16 for details.

In a joint letter to EPA, IADC, the Domestic Petroleum Council and IPAA wrote, “This unprecedented requirement is unwarranted by any risk arising from hydraulic fracturing, is unsupported by any scientific findings, and is an



Under threat: A 10-year-old lawsuit alleging drinking water contamination from hydraulic fracturing has brought coalbed-methane operations in Alabama to a virtual standstill. This despite evidence to the contrary, including a comprehensive, independent study of more than 10,000 wells in 13 states. Photo of a hydraulic frac job courtesy of Halliburton Energy Services.

inappropriate application of the regulations.”

Gov Siegelman pointed out that the coalbed methane industry has invested more than \$2 billion in Alabama, with plans in the Black Warrior Basin of \$100 million in new investments. “Thus, development of 500 new wells will mean the retention and creation of hundreds of jobs and will generate millions in federal, state and local tax revenues,” he wrote. “All of these plans could be put on hold or canceled if the EPA takes punitive action against the state of Alabama.”

EPA’S QUANDARY

Interestingly, EPA initially fought the effort to bring hydraulic fracturing under the underground-injection umbrella. The agency argued initially that Congress never intended to regulate the activity. Further, it pointed out that the specific complaint of contamination that led to the lawsuit was investigated by the state of Alabama. No evi-

dence of contamination was ever found. The state **Oil and Gas Board** responded speedily to the 2 complaints made by the family, testing the well in question the day after each of the reports was filed.

And in a larger sense, no evidence of drinking-water contamination has been discovered anywhere in the US, according to an exhaustive 10,000-well, 13-state study by the **Ground Water Protection Council**. (The GWPC is an Oklahoma-based national association representing state groundwater and underground injection control managers.) This should be no surprise, considering that 99% of fracturing fluids flow back up the wellbore after the operation with the produced hydrocarbons. The rest remains trapped in the rock.

“The assumption that this small amount of remaining fracturing fluid could reach a drinking water well is illogical due to physical, geological and hydrological properties,” wrote API’s **Mark Rubin** in a letter to **James Curtin** of the EPA. “There is no evidence that this has ever occurred. But even if it did, the fracturing fluids would be so diluted by the water in the formation that by the time they reached the drinking water well, constituent levels would be significantly below that in the original fracturing fluid.”

By contrast, the **US Congress** enacted legislation regulating underground injection to prevent fluids *disposed* of underground from harming drinking-water supplies.

Section 1421 of the Safe Drinking Water Act says that injection endangers underground sources of drinking water “if such injection may result in the presence in underground water which supplies or can reasonably be expected to supply any public water system of any contaminant and if the presence of such contaminant may result in such systems not complying with any national primary drinking water regulation or may otherwise adversely affect the health of persons”.

The water in Alabama’s coalbed methane formations does not supply, nor is it likely to supply any public water system, Mr Rubin observed.

“The water in these formations is

unsuitable for drinking due to the presence of hydrocarbons,” he wrote.

In its 1998 study, the GWPC surveyed 25 oil and gas producing states, inventorying all wells per state and seeking cases of documented contamination to drinking water supplies caused by hydraulic fracturing of coalbed methane wells. While the group found 13 states with such wells, only 8 states have a significant number. (4 states have just 3 wells and one only 23, for example. The remaining 8 had inventories ranging from 250 in Oklahoma to 3,500 in Alabama. The precise total was 10,373 wells.)

In a letter to the then-Chairman of the US Senate committee on Environment and Public Works, the late Rhode Island Republican **Sen John Chafee**, GWPC Executive Director **Michel Paque** wrote, “The responses from these 13 states’ oil and gas agency directors indicated no documented cases of contaminated underground sources of drinking water and only 2 cases pending investigation. That number is not significant given the 10,000 well inventory.”

THE LEAF CHALLENGE

In 1989, a family living near the River Gas coalbed methane development in Tuscaloosa County, Alabama, enlisted the help of the **Legal Environmental Assistance Foundation (LEAF)** of Tallahassee, Fla, to challenge coalbed methane operations, explained **Dennis Lathem** of the Coalbed Methane Association of Alabama (CMAA). “They charged that nearby coalbed methane hydraulic fracturing activity in 1989 had contaminated a water well located on family property; Mr Lathem wrote in a piece entitled “LEAF v EPA: A Challenge to the Hydraulic Fracturing of Coalbed Methane Wells in Alabama”.

In March 1990, a task force with industry, state and federal participation launched a study of the potential for groundwater contamination from the hydraulic fracturing of coalbed methane wells. The group’s report acknowledged that contamination was possible, but pointed out that the information on fracturing properties rendered in unlikely.

The task force further recommended some guidelines to enhance groundwa-

ter protection. While these guidelines were never formally incorporated into the Alabama state Oil and Gas Board’s rules on hydraulic fracturing, they were widely used by operators and regulators alike in approving and planning hydraulic fracturing jobs, according to the Alabama CMAA.

In May 1994, LEAF petitioned EPA to withdraw Alabama’s “primacy” for the

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**—Dennis Lathem,
Coalbed Methane Association of Alabama**

underground injection control (UIC) program. In Alabama, Mr Lathem explains, the state OGB can administer “Class II” wells and the **Alabama Department of Environmental Management** administers Class I, III, IV and V wells.

A year later, EPA denied the LEAF petition. In that response, EPA specifically said that Congress never intended to regulate this activity, and that the specific complaint had been investigated by both the state and by EPA with nothing found to substantiate the claim.

Wrote EPA: “EPA does not regulate—and does not believe it is legally required to regulate—the hydraulic fracturing of methane gas production wells under its UIC program. There is no evidence that the hydraulic fracturing at issue has resulted in any contamination or endangerment of underground sources of drinking water. Hydraulic fracturing is closely regulated by the Alabama state Oil & Gas Board, which requires that operators obtain authorization prior to all fracturing activities.”

This is when the court got into the act. LEAF filed with the 11 Circuit a Petition for Review of EPA’s denial. The EPA asked the court to deny LEAF’s request.

2 years later, on 7 Aug, 1997, the 3 judges of the 11th Circuit Court of Appeals issued their opinion and order. They decided that a plain language interpretation of the definition of under-

ground injection did, in fact, cover hydraulic fracturing. Note, they did not limit their finding just to coalbed wells, but expanded the UIC umbrella over all hydraulic fracturing.

EPA, ordered by the court to reconsider the issue, within a few weeks petitioned the court to rehear the court. Several groups filed friend of the court briefs supporting EPA. Still, the court turned EPA’s request down.

Despite encouragement from GWPC, CMAA and several states to appeal to the **US Supreme Court**, EPA and the **US Justice Department** decided against that course.

EPA instead began working with GWPC, CMAA and others to consider additional regulations for hydraulic fracturing with a low-cost impact, both on

operators and on regulators, while meeting the expectations of EPA and the court.

LEAF in late 1998 filed another petition with the court charging EPA with taking no action on the August 1997 order. In February 1999, the court established a time frame for EPA to withdraw UIC primacy in Alabama, ultimately imposing a year-end deadline.

“It has become apparent,” wrote CMAA’s Lathem, “that a regulatory fix to this issue could be extremely difficult, if not impossible to achieve, that doesn’t also practically eliminate the use of hydraulic fracturing of coalbed methane wells.” Requiring, for instance, the complete Class II permit process with all the bells and whistles, would render new well drilling too costly.

Industry is working feverishly to develop legislative remedies specifically exempting hydraulic fracturing from the underground injection program.

Ironically, the shutdown of coalbed-methane activity would put EPA at cross purposes with itself. As Gov Siegelman noted, the agency has spent some \$6 million over the past 5 years to promote coalbed methane worldwide as a means to prevent methane from escaping into the atmosphere. The upshot is a valuable natural resource wasted to protect another natural resource that’s not even under threat.

Thus the logic of environmental lawsuits and pseudo-science. ■