

**State of Michigan**  
**Department of Environmental Quality**

Deanna Hughes, Heather Schiele, and Ban  
Michigan Fracking,  
Petitioners

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**Petition for Declaratory Ruling**  
**as to**  
**Application of R 324.102(x) and 324.201(2)(j)(v) and (vi)**  
**to**  
**Fracking Permit Applications and Operations**

**Introduction**

1. This petition asks the department to determine that Rule 324.102(x) applies to fracking completions of oil and gas wells, and that operators who frack or intend to frack must comply with the department's rules, forms, and practices regarding injection wells, including in their permit applications and their operations.
2. This petition is brought under MCL 24.263 and R 324.81.
3. Preliminarily, petitioners ask that the department provide petitioners (a) a list of pending applicants for oil/gas permits where the applicant has stated it intends to

frack but has not provided the data required by rule for injection wells, (b) the names of the wells, and (c) the status of the applications.

4. Petitioners ask that the department not grant the listed applications until disposition of this petition. Should the department decline we will ask a circuit court to order temporary relief along those lines, under MCL 24.264.

5. Petitioners will provide copies of this petition by email to Michigan Oil and Gas Association (“MOGA”), the Michigan office of the American Petroleum Institute (“API”), Encana Oil and Gas USA (“Encana”), and Devon Energy (“Devon”).

### **Parties and standing**

6. Deanna Hughes owns property and lives at 5623 Parkwood in Gladwin, Sherman Township, Gladwin County. She is about a mile from the site of a proposed well at Adams and Meredith Grade Roads. On April 23, engineer Alan James of Devon Energy, a Houston company, confirmed to Guy Bradmon (who lives next door to Hughes) Devon's plans to apply for a DEQ permit to drill a well, called “State Sherman 1-8,” at that location. James said the company planned to spud this coming August and frack in October or November. See Bradmon affidavit and attached pictures.

7. Heather Schiele's and Guy Bradmon's property (they are married) is at 5629 Parkwood in Gladwin, Sherman Township, Gladwin County.

8. Hughes first learned of the injection operations and plans in the Gladwin

area from a local newspaper. The paper said land was reclassified by the DNR as developmental for oil and gas operations. She researched the dangers of injection in websites and governmental reports, as well as the department's view favoring “ultimate recovery of the maximum production of these natural products [oil and gas].” MCL 324.61502. She learned that injection operations including the storage, transport, handling, and use of toxic chemicals, waste fluids, and processing are likely to take place near her. Because of the proximity, she fears that the fracturing/injection process, and associated water-loss, noise, trucking, logging, and possible leaks, spills, flares, accidents, or explosions, will affect her property and surroundings, and that of neighboring residents. She fears that air, water, and land will be contaminated by the fumes, dust, particulates, chemicals, and dangerous naturally occurring substances. Since then she has written letters of concern to newspapers, her state rep and senator, and the DNR and DEQ. She has attended local meetings of MSU Extension and a public meeting of about 200 on April 12 in Gladwin, and spoken to township officials, friends, and neighbors about the danger to her and her neighbors' property. She joined Ban Michigan Fracking (“BMF”).

9. Similar to Hughes, Schiele became involved in the issue of wells coming to the township. She met with her state rep about it, attended the meetings of MSU extension and the one on April 12, spoke publicly at the meeting on April 12, and joined BMF.

10. Hughes's and Bradmon's water and that of their neighbors is from private wells. If injection well data and chemical analysis are in hand before State Sherman 1-8 is drilled, they can do more efficient and inexpensive baseline testing of the local water, and thereby prevent risk of waste, impairment, or harm to water, property, and person.

11. BMF is a Michigan nonprofit corporation with offices in Novi, and a website at <http://banmichiganfracking.org> . As explained in the attached affidavit of counsel (“Boal affidavit”), BMF seeks to ban horizontal fracking in Michigan. Though the present petition does not seek that relief, it would affect the industry in many counties.

12. All remaining facts will be uncontested.

## **Background**

13. According to a department white paper, fracking or hydraulic fracturing (both terms are correct) is a one-time procedure that:

is part of the completion of some types of oil or natural gas wells. More recently, horizontal drilling is being utilized, particularly in the deeper gas reservoirs. The purpose of both of these technologies is the same: to increase exposure of more reservoir rock formation to the well bore to maximize gas production.... In Michigan, since the 1960s, more than 12,000 wells have been hydraulically fractured. Most of these are Antrim Shale Formation gas wells in the northern Lower Peninsula. [The process] involves pumping water at high pressure to create fractures in reservoir rock that allow the oil or natural gas to flow more freely to the well bore. Some of the chemical additives can have adverse health or environmental impacts if they are not properly handled and contained.... A fracture treatment of a typical Antrim gas well requires about 50,000 gallons of water. In the emerging Utica/Collingwood Shale gas development, the amount of

water needed to fracture a horizontal well may be up to 5,000,000 gallons or more.

[http://www.michigan.gov/documents/deq/Hydrofrac-2010-08-13\\_331787\\_7.pdf](http://www.michigan.gov/documents/deq/Hydrofrac-2010-08-13_331787_7.pdf) .

14. API is an association of nearly 500 companies in the oil and gas industry. One of its missions is to develop and publish engineering standards, arrived at by consensus with rigorously high membership participation. API standards are cited frequently in Michigan regulations.

15. As is described more fully in the Boal affidavit, recently published API standards provide that a well which is injected with fluids to enhance or increase ultimate recovery of hydrocarbons is an “injection well.”

### **Communications with DEQ**

16. According to the Boal affidavit, on March 28-29 counsel communicated with Susanne Biteman, the DEQ geologist who has been processing applications for frack permits in northern lower Michigan, to ask why they have not been treated as injection wells under R 324.102(x).

17. According to that rule, an injection well includes

... a well used to inject water, gas, air, brine, or other fluids for the purpose of increasing the ultimate recovery of hydrocarbons from a reservoir....

The “ultimate recovery” language tracks that of the department's statutory mission, quoted in ¶ 8 above.

18. Biteman wrote back saying the definition refers only to one type of injection well, wells drilled for “secondary recovery.”

19. On April 4 Encana applied for several frack permits, including two at a wellhead in Oliver Township in Kalkaska County where the DEQ previously permitted a frack well. As described in the Boal affidavit, the pad is on Sunset Trail in pristine woods of the Mackinaw State Forest, near a public boat launch, a 1200-acre year-round Boy Scout camp, a snowmobile trailhead, and the North Branch of the Manistee River. The pad is where Encana left a 60-foot drilling rig on a weekend last fall, unfenced and unguarded. That day, in violation of MCL 324.61525(1), a permit was not displayed conspicuously or at all. The combined vertical and horizontal depths of the existing and proposed new wells would sum to over 10 miles. Each of the three is deeper than any other oil or gas well petitioners know of in the state.

20. Learning of the applications, on April 11 counsel wrote the department's head geologist Hal Fitch questioning Biteman's application of the rule, since the rule does not distinguish secondary wells as she claimed. Counsel asked whether the department would summarily reject the Encana applications if the company didn't follow procedures for injection wells.

21. As explained in detail in the Boal affidavit, a rule-required form which the department requires an injection driller to file with an application discloses various injection well data, such as the specific gravity and maximum rate and pressures of the

proposed injection, and chemical analysis of representative samples of the injected fluid.

The applicant must also show that overlying strata will not be fractured.

22. Fitch wrote back refusing to reject the applications, but for a different reason than Biteman's. He said frack wells are not injection wells because the purpose of an injection well is to increase the “ultimate” recovery of hydrocarbons, unlike a frack well which he said seeks to increase the “initial” recovery of hydrocarbons. He added the department had always interpreted the rule this way since it was promulgated in 1996.

23. Counsel wrote back on April 12 noting the rule does not make the initial/ultimate distinction made by Fitch, the eleventh circuit rejected similar reasoning of the EPA as “spurious” in *LEAF v EPA*, 118 F3d 1467 (CA11, 1997) (a case under the federal Safe Drinking Water Act as it was then worded), and factual assumptions of years ago are no longer warranted under high-volume fracking technology as it exists today.

### **Industry agreement on the definition at the Gladwin and Acme meetings**

24. On April 12 counsel attended a public meeting in Gladwin, and spoke with Alan James, the senior Michigan production engineering adviser for Devon Energy, which, according to the Bradmon affidavit, is about to frack in that county. Asked whether a purpose of hydraulic fracturing is to “increase the ultimate recovery of

hydrocarbons" (tracking the wording of the rule) James answered "yes," in writing.

25. On April 18 counsel attended a talk by David Miller, API's standards director, at a MOGA/API meeting in Acme.

26. Counsel was invited into the talk by API Michigan director John Griffin. Before going in, he asked Griffin whether the purpose of hydraulic fracturing is to increase the ultimate recovery of hydrocarbons. Griffin said "yes."

27. Asked the same question in front of some 100 top industry leaders, Miller also answered "yes."

28. Among Miller's listeners was DEQ operations chief Rick Henderson, who had addressed the meeting earlier in the afternoon. Henderson was familiar with the issue, having been copied on Biteman's and Fitch's emails to Boal. He took no public exception to Miller's assertion, or to the API materials there, that the purpose of hydraulic fracturing is to increase the ultimate recovery of hydrocarbons. Neither did anyone else.

### **Conclusion and relief requested**

29. Michigan has no "Halliburton loophole" akin to the loophole (42 USC 300h(d)(1)(B)(ii)) legislated into the federal Safe Drinking Water Act after the ruling in *LEAF v EPA*, 118 F3d 1467 (CA11, 1997).

30. Fracking is ongoing through the lower peninsula. If the department's ruling



is as petitioners request, the industry itself will be impacted, as will the rights and expectations of landowners other than petitioners in many counties.

31. Industry and petitioners agree the purpose of fracking is to increase the ultimate recovery of hydrocarbons. The department will not ignore this uncontested consensus. Accordingly fracking is within the the definition of injection wells in R 324.102(x).

32. Because of mixed department messages and practices in the past, the public will benefit by a declaratory ruling.

33. Accordingly the department is asked to declare that R 324.102(x) and 324.201(2)(j)(v) and (vi) – and all other departmental rules, forms, and practices for injection wells – apply to all pending and future applications for and operations of frack wells.

Respectfully submitted,



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