Mr. Boal,

I would only comment that the same type of drilling rig machinery can and is used for drilling both oil and gas and mineral exploration wells.

I am not interested in any consulting work for you or your client. I provide basic general information about Michigan subsurface geology and the various operations that gather data from below ground as a public educational service to members of the public. I am not involved in any of the regulatory decisions that are made about classification of wells drilled in Michigan. However, I would encourage you to examine an oil and gas lease in Michigan, I think you will see that the term "mineral rights" is commonly used. I believe that you will find that oil and gas is uniformly referred to as a "mineral" commodity.

I think that my professional credentials are publicly available.

Bill

Dr. William B. Harrison, III
Professor Emeritus and Director,
Michigan Basin Core Research Laboratory,
part of the Michigan Geological Repository for Research and Education
Michigan Geological Survey
Department of Geosciences
Western Michigan University
Kalamazoo, MI 49008

Office Phone: 269-387-8691
Lab Phone: 269-387-8633
FAX:269-387-8669

Visit our website at
http://wsh060.westhills.wmich.edu/MGRRE/index.shtml

----- Original Message -----
minerals at all in Crawford County, and which does not list oil or
gas as minerals though one outlying "hydrocarbon" is noted in a
far-west UP county),

* exhibit 2 (page 1 of Marathon's permit application for D4-11
which
it was required to produce to the township), and

* pictures of the sign next to the clearing (which is some 3-4
acres).

As you will see from the complaint, there is no definition of
"mineral" in part 625 (MCL 324.62501 et seq) which governs "mineral
wells." Further, there is a strict separation between it and part
615 (which governs oil-gas wells). If a mineral well driller finds
oil or gas, yes the well can then be re-permitted under part 615.

Note the pictures show that a permit was indeed issued, and the
number is "M645". I assume the "M" means "mineral". Oil-gas permits
are the letter "P" followed by five digits not three.

You write:

"Wildcat exploratory wells for oil and gas have often been drilled
under the State 'Mineral well act' so that a company can gain
information about the geologic deposits in that area with out
releasing the information to the public and hence their
competitors."

If you are correct and this is in fact a common practice, I believe
the practice is illegal under current law. If an operator intends to
explore for oil or gas -- even if it is simultaneously exploring for
potash, salt, brine, or any other mineral -- the operator should
state that in the application, particularly if oil or gas is the
primary ore being sought.

Another indication that D4-11 is an oil-gas well not a mineral well:
The decision to leave a blowout preventer in place after the rig
departed. The oil-gas rules require this, but the mineral well rules
do not require a BOP after the drilling process.

I take it -- since you did not comment on it -- that you could tell
nothing about the nature of the well from the video at
https://youtu.be/XWn_0DroCkQ. That surprises me since I had assumed
mineral wells and oil-gas wells would utilize different types of
drilling equipment.

One puzzling aspect of the case: As mentioned, a regularly-permitted
oil-gas well was drilled by the same rig a ½-mile away, right after
drilling D4-11. The permit for that well says it is aiming for 4407
feet in Detroit River Group, almost the same depth as D4-11.
Amherstburg is part of the Detroit River group. Why did Marathon
bother with D4-11 as a mineral well, if it was already permitted to
explore the same formation a short distance away? I can send you the
application and permit for that well if it would interest you.

Let's chat a bit more, at the end of which I wonder if you would mind writing me a letter stating your credentials, your examination of the documents, and the same opinion you already expressed:

"The Amherstberg is not a formation that contains Salt, Potash or any other type of solid minerals that could be produced commercially, so I am reasonably confident that this was an exploratory well for oil and gas that was drilled under the Mineral Well Act to maintain confidentiality."

(I have seen "Amherstburg" spelled with "burg".)

That would likely suffice to win the case, without need for testimony. I will pay your regular rates.

About me: My website is http://ellisboal.org. At the bottom of the "global warming" page is a listing of my enviro-oil-gas cases as of 1½ years ago. I just started doing them and they still number under a half-dozen. The second-listed case is still ongoing. We have not yet totally won it and the pipelines are still in the ground. But I am sanguine about our chances in the court of appeals, which should decide by the end of the year.

Ellis, 231-547-2626

On 5/17/2016 10:10 AM, William B Harrison, III wrote:

Dear Mr. Boal,

The State of Michigan has a category of permitted wells called "mineral wells" that guarantee a very high level of confidentiality to the driller of that well for an extended period of time (over 10 years, I think). The term Mineral well cannot be assumed that it is specifically drilled for some type of solid mineral like Potash, Salt, etc. In fact, oil and gas are considered "minerals" under the definition of that type of well. Wildcat exploratory wells for oil and gas have often been drilled under the State "Mineral well act" so that a company can gain information about the geologic deposits in that area with out releasing the information to the public and hence their competitors. I believe that under this Mineral well act, it is not even possible for the existence of the well to be disclosed by the DEQ until the confidentiality period expires. The rules about mineral wells are that they may be kept confidential from the public, but if they are for oil and gas exploration, t

hat wel

l can never be produced for oil and gas. It has to be repermitted
as an oil and gas well and then the information is available to the public before it can ever be produced. If the mineral well drilled for oil and gas evaluation is never repermitted as an oil and gas well, I would assume that the company did not find enough positive information to encourage them to continue development in that area.

I do not have any specific knowledge about the Marathon well you mentioned, but the area in Beaver Creek Township is a well-known oil and gas region with an old very large oil field there called the Beaver Creek Field. The Amherstberg formation is a known oil and gas producing zone in other parts of the state and is very likely the target zone they were evaluating.

The naming of the well "Beaver Creek D4-11" is also a very common naming style for oil and gas wells. As far as I know other mineral wells that are looking for solid minerals do not use this type of naming convention.

The Amherstberg is not a formation that contains Salt, Potash or any other type of solid minerals that could be produced commercially, so I am reasonably confident that this was an exploratory well for oil and gas that was drilled under the Mineral Well Act to maintain confidentiality. Unless the company relinquishes the confidentiality of this well I don't think any information about it will be available to the public.

In that region of the state, the depth of 4700 feet is approximately accurate for the Amherstberg formation.

If I can answer any other questions, please feel free to contact me.

Bill

Dr. William B. Harrison, III
Professor Emeritus and Director,
Michigan Basin Core Research Laboratory,
part of the Michigan Geological Repository for Research and Education

Michigan Geological Survey
Department of Geosciences
Western Michigan University
Kalamazoo, MI 49008

Office Phone: 269-387-8691
Lab Phone: 269-387-8633
FAX: 269-387-8669

Visit our website at
http://wsh060.westhills.wmich.edu/MGRRE/index.shtml

From: ellisboal@voyager.net To: "William Harrison iii"
<william.harrison.iii@wmich.edu> Sent: Monday, May 16, 2016
7:24:48 PM

Subject: [William Harrison] potash in Crawford County?

Ellis Boal sent a message using the contact form at
https://wmich.edu/.

William Harrison,

I am an attorney in Charlevoix. I just started a FOIA case about a

well

claimed by the DEQ to be a mineral well in Crawford County, named
"State Beaver Creek D4-11". For a variety of reasons the well gives the appearance of being an oil-gas exploratory well not a mineral well. The operator, Marathon Oil, used a drill rig last fall which saw service in oil-gas exploration immediately before and after D4-11. A worker there told me at the time the company was looking for gas and oil, a blowout preventer was left in place after the rig departed the several-acre site in the state forest clearing and since then there has been no activity. The rig went 4700 feet into the Amberstberg formation, at the same level at which
Marathon was exploring for oil and gas a half-mile away. A DEQ inventory brochure says there are no minerals in Crawford County. Marathon Oil to my understanding is in the oil-gas business, not potash business. The rig was brought 1000 miles from oil-gas sites in North Dakota and must have cost Marathon millions to transport and operate.

A 43-second video of the drilling operation from last fall is viewable at https://youtu.be/XWn_0DroCKQ.

I saw an article of last year by Dan Calabrese featuring a discussion with
you of potential potash production centered around a plant in Hersey

near Big Rapids. Apparently there is a large deposit of potash underlying much of the lower peninsula, although I am not clear as to what the formation is in which the deposit is thought to be.

The purpose of the case, on behalf of a neighbor and an enviro organization, is simply to obtain DEQ documents about the well. DEQ is refusing any information on a claim that the well is a mineral well, under the law of which there are special confidentiality provisions which do not apply to
oil-gas wells. The minerals which DEQ typically regulates under this law, to my understanding, are potash, salt, and brine.

DEQ will not even say if it did permit the well.

Salt and brine are abundant in Michigan so it is not likely that D4-11 was drilled for them. That leaves potash as the potential sought-after ore.

Puzzling, because Crawford County does not show up in the map accompanying the above article.

If it turns out the well is a legitimate exploratory well for a Michigan mineral I will drop the case. But so far DEQ will tell us nothing,
even

though the unusual law on this point is that the burden of proof is on it.

I will send documents and pictures on request. Would you be willing to view the 43-second video and then call or write me to discuss the above.

Perhaps you will immediately see clues in the video which tell you the purpose of this well.

Thank you.

Ellis Boal, phone 231-547-2626