

STATE OF MICHIGAN  
DEPARTMENT OF ENVIRONMENTAL QUALITY

**ORDER OF THE SUPERVISOR OF WELLS**

IN THE MATTER OF:

THE PETITION OF BAILER & DESHAW, FOR AN ORDER )  
FROM THE SUPERVISOR OF WELLS AUTHORIZING AN )  
EXCEPTION TO THE WELL SPACING PATTERN FOR ) ORDER NO. 01-2017  
THE PEAVEY 3 WELL, AND AUTHORIZING A SECOND )  
DETROIT RIVER FORMATION WELL IN A 40-ACRE )  
DRILLING UNIT LOCATED IN CLAYTON TOWNSHIP, )  
ARENAC COUNTY, MICHIGAN. )

**OPINION AND ORDER**

This case involves the Petition of Bailer & Deshaw (Petitioner), to deepen a well (the Peavey 3 well) within a 40-acre drilling unit to test the stratigraphic interval known as the Detroit River Formation. The Peavey 3 well (PN 4392) was drilled 330 feet from the west drilling unit boundary and 460 feet from the south drilling unit boundary and currently produces from the Dundee Formation. The Petitioner is requesting an exception to the spacing pattern set by the applicable August 5, 1953, Spacing Order for Wells Drilled for Oil in the Clayton Detroit River Formation Pools in Arenac and Ogemaw Counties, for deepening of the proposed Peavey 3 well. The proposed unit consists of the SW 1/4 of SE 1/4 of Section 4, T20N, R4E, Clayton Township, Arenac County, Michigan.

Jurisdiction

The development of oil and gas in this state is regulated under Part 615, Supervisor of Wells, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, MCL 324.61501 *et seq.* The purpose of Part 615 is to ensure the orderly development and production of the oil and gas resources of this state. MCL 324.61502. To that end, the Supervisor may establish a drilling unit for each pool. MCL 324.61513(2).

The evidentiary hearing is governed by the applicable provisions of the Administrative Procedures Act, 1969 PA 306, as amended, MCL 24.201 *et seq.* See

1996 MR 9, R 324.1203. The evidentiary hearing in this matter was held on February 16, 2017.

### **FINDINGS OF FACT**

The Petitioner seeks an order of the Supervisor authorizing a Detroit River Formation well location in the SW 1/4 of the 40-acre drilling unit for the proposed Peavey 3 well as an exception to the applicable spacing order for Detroit River wells in Section 4 of Clayton Township, which established Detroit River well locations in the center of the SE 1/4 of the 40-acre drilling unit.

The Administrative Law Judge determined that the Notice of Hearing was properly served and published. No answers to the Petition were filed, therefore, the Petitioner is the only party to this case. The Supervisor designated the hearing to be an evidentiary hearing pursuant to R 324.1205(1)(c) and directed evidence be presented in the form of verified statements. In support of its case, the Petitioner offered the verified statement of Mr. Timothy R. Maness, Petroleum Geologist.

Mr. Maness' verified statement indicates the Petitioner has conducted an analysis of the Detroit River Formation in the proposed unit. Based on the Petitioner's review, study, and analysis of all geologic information available to it, the Petitioner plans to deepen the Peavey 3, a Dundee Formation well, located in the SW 1/4 of the SW 1/4 of SE 1/4 of Section 4, T20N, R4E, Clayton Township, Arenac County, Michigan. The Petitioner has applied for a permit to deepen the Peavey 3 well.

The spacing of wells drilled in Clayton Township, Arenac County targeting the Detroit River formation is governed by a Spacing Order dated August 5, 1953. This Order establishes drilling units of 40 acres, more or less, with Detroit River wells located in the center of the SE 1/4 of the drilling unit.

Mr. Maness' verified statement indicates the Peavey 3, Permit Number (PN) 4392, was permitted and drilled to the Dundee Limestone Formation prior to 1939 when 10-acre general rule drilling units were established. The Peavey 3 is located in the SW 1/4 of the drilling unit. The Peavey 1, PN 18492, is an active well, producing from the Detroit River Formation in the SE 1/4 of the drilling unit. It is the opinion of

Mr. Maness that the proposed well has the potential to produce undrained Detroit River oil from the unit.

There are three producing Detroit River wells in the area: the Peavey 1, PN 18492, located in the unit, the Berry & Dodge 1, PN 19475, located in the 40-acre unit to the west, and the Thompson & Green 2, PN 12575, located in the 40-acre unit to the east. All three of these wells conform to the established spacing order (see Exhibit A). The Verified Statement of Mr. Maness indicates that the Detroit River pay zones are controlled by geologic structure (Exhibit C) and porosity (Exhibit D). There are four distinct potential pay zones in the Detroit River in this area. Each zone acts as a separate reservoir. The zones are limited in areal extent. It is the opinion of Mr. Maness that deepening the Peavey 3 well, at its present location 330-feet from the west line of the unit and 460-feet from the south line of the unit, would not have an adverse impact on the correlative rights of owners in the offsetting units.

In addition, Mr. Maness submits that the proposed deepening of the Peavey 3 to the Detroit River would not result in harmful interference to the offsetting units because of the limited areal extent of the individual reservoirs. Mr. Maness notes that the unit to the east produces only from Sour Zone 3 and is too far away to be impacted, and the existing Peavey 1 well in the unit lies between. The unit to the west is productive only in Sour Zones 1 and 2, so new production from Sour Zones 3 and 4 would have no impact, while Sour Zones 1 and 2 are not productive in the existing Peavey 1 well, so new production from these zones would be protecting the correlative rights of the drilling unit. The Verified Statement notes that, the offsetting units are largely depleted after being produced in excess of 50 years and current production is marginal.

It is the opinion of Mr. Maness that a second Detroit River well in the drilling unit should be allowed for the following reasons:

1. Production from the Peavey 1 is marginal and would not be adversely affected by a second well;
2. The proposed Peavey 3 is not likely to drain an area in excess of 20 acres;
3. The proposed Peavey 3 would not adversely affect the maximum amount of oil and gas recovered from the unit, nor would it adversely affect the correlative rights of owners in the adjacent quarter-quarter sections.

In addition, Mr. Maness stated that a new well is not practical and would result in both surface and economic waste.

I find that the proposed well location exception will prevent waste and protect correlative rights and, as such, is approved for the proposed well. I also find that a second Detroit River Formation well in the proposed drilling unit is approved.

### **CONCLUSIONS OF LAW**

Based on the Findings of Fact, I conclude, as a matter of law:

1. The location of Detroit River Formation wells in Arenac County is established by the Spacing Order for Wells Drilled for Oil in the Clayton Detroit River Formation Pools in Arenac and Ogemaw Counties, dated August 5, 1953. Exceptions to Supervisor of Wells orders may be granted by the Supervisor after a hearing.
2. The Supervisor has jurisdiction over the subject matter and the persons interested therein.
3. Due notice of the time, place, and purpose of the hearing was given as required by law and all interested persons were afforded an opportunity to be heard. 1996 MR 9, R 324.1204.

### **DETERMINATION AND ORDER**

Based on the Findings of Fact and Conclusions of Law, the Supervisor determines that the proposed Detroit River Formation well location exception will protect correlative rights and prevent waste. In addition, a second Detroit River Formation well in the drilling unit is approved.

**NOW, THEREFORE, IT IS ORDERED:**

1. A well location exception is granted for the deepening of the Peavey 3 well, to be completed in the Detroit River Formation, 330 feet from the west boundary and 460 feet from the south boundary of the drilling unit.
2. The drilling of a second Detroit River Formation well in the proposed drilling unit is approved.
3. The Supervisor retains jurisdiction in this matter.
4. This Order shall be effective immediately.

DATED: March 24, 2017

  
HAROLD R. FITCH  
ASSISTANT SUPERVISOR OF WELLS  
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