

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

ORDER OF THE SUPERVISOR OF WELLS

THE PETITION OF CORE ENERGY, LLC, FOR AN ORDER)
FROM THE SUPERVISOR OF WELLS AMENDING)
ORDER NO. (A) 3-1-96 TO ADD THE SE 1/4 OF SW 1/4) ORDER NO. 03-2016
OF SECTION 28 AND NE 1/4 OF NW 1/4 OF SECTION 33,)
DOVER TOWNSHIP, OTSEGO COUNTY, MICHIGAN, TO)
THE DOVER 33-31N-2W UNIT.)

OPINION AND ORDER

This case involves the Petition of Core Energy, LLC (Petitioner), for an expansion of the Dover 33-31N-2W, Guelph Dolomite/Ruff Formation Enhanced Recovery Unit from 240 to 320 acres (proposed Dover 33 2016 Expansion Unit). The original Dover 33 Unit was established by Order No (A) 3-1-96 and consisted of the S 1/2 of SE 1/4 of Section 28 and the NE 1/4 of Section 33, T31N, R2W, Dover Township, Otsego County, Michigan.

The lands to be added consist of the SE 1/4 of SW 1/4 of Section 28 and NE 1/4 of NW 1/4 of Section 33, T31N, R2W, Dover Township, Otsego 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 (NREPA), 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. 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 set for December 15, 2016.

FINDINGS OF FACT

The Petitioner specifically requests that the Supervisor issue an Order:

1. Approving the replacement of the Dover 33 Unit by the proposed Dover 33 2016 Expansion Unit, which will contain additional acreage and an additional well.
2. Apply all terms and conditions of the original order to the Order establishing the new 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 in this matter. The Supervisor designated the hearing to be an uncontested 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 Statements of Mr. Kim Sanders (land) and Mr. Wayne Goodman (geology).

The original Dover 33 Unit was developed by Mercury Exploration Company in 1996 pursuant to a voluntary Unitization Agreement. The Dover 33 Unit began producing oil in December 1996.

The Petitioner acquired the Dover 33 Unit in 2003, and became the Unit Operator at that time. As authorized by Order No. (A) 3-1-96, the Petitioner has operated the Dover 33 Unit as an enhanced oil recovery project through the injection of carbon dioxide (CO₂). Since October 2008, injection and oil production have occurred intermittently. Oil was last sold from the Unit in 2012. The Petitioner has continued CO₂ injection and other operations from 2012 to the present time.

The verified statement of Wayne Goodman details Core's study of all nearby reef penetrations as well as the results of the recent testing of a mineral test well (the Lawnichak 9-33 well, Permit Number M 652), all of which confirms that the Dover 33 reservoir extends northwesterly beyond the original Dover 33 Unit boundaries, and substantially underlies the additional 80 acres proposed for inclusion in the new Dover 33 2016 Expansion Unit. The Lawnichak 9-33 Well Log (Exhibit 3) shows that this well cut over 250 feet of Brown Niagaran. Further, Mr. Goodman indicated the testing results of

the Lawnichak 9-33 produced a large CO₂ component, thereby proving that the additional 80 acres proposed to be included in the new unit is underlain by the Dover 33 reservoir, wherein the CO₂ was injected. Evaluation of the Lawnichak 9-33 mineral test well reflects a likelihood that this well can be utilized as an oil producer if the new unit and Unit Area are approved. Mr. Goodman's testimony establishes that the proposed Dover 33 2016 Expansion Unit is a distinct reservoir separate from all other established reservoirs in the nearby area.

The spacing of wells in Otsego County targeting the Guelph Dolomite/Ruff Formation (formerly termed the "Salina A-1/Niagaran") is governed by Special Order No. 1-73 unless otherwise ordered by the Supervisor of Wells. Currently, Special Order No. 1-73 controls 80 acres of the proposed Dover 33 Expansion Unit. This Order controls the location, spacing, and production of wells drilled for oil and/or gas into or below the Salina-Niagaran Formation in Otsego County. Special Order 1-73 establishes drilling units of 80 acres, more or less. The remaining 240 acres in the proposed Expansion Unit (the original Dover 33 Unit) are controlled by Order No. (A) 3-1-96.

The Petitioner's proposed Dover 33 2016 Expansion Unit is described as the S 1/2 of the SE 1/4 and the SE 1/4 of the SW 1/4 of Section 28; the NE 1/4, and the NE 1/4 of the NW 1/4 of Section 33; T31N, R2W, Dover Township, Otsego County, Michigan.

Mr. Sanders' verified statement indicates that the Petitioner is the record owner and the current operator of the Dover 33 Unit established by Order of the Supervisor of Wells No. (A) 3-1-96, dated January 19, 1996. As authorized by Order No. (A) 3-1-96, Petitioner has operated the Dover 33 Unit as an enhanced oil recovery project through the injection of carbon dioxide. CO₂ EOR operations commenced in 1996, and have continued since then. Petitioner owns and controls oil and gas leases covering all of the oil and gas rights in the Salina A-1/Niagaran series of formations lying within and under the additional 80 acres to be joined with the original 240 acre Unit Area. Such oil and gas leases, as amended, grant Core the authority to pool the leases up to a 360 acre Unit Area.

Mr. Sanders also indicated the Petitioner proposes a well spacing pattern with all wellbores open and in communication with the unitized formation not less than 330 feet from the outside boundaries of the Unit Area of the proposed Dover 33 2016 Expansion Unit. There will be no adjustment of prior payments that were paid based on the 240-acre Dover 33 Unit. After the expanded unit is approved, all future oil production will be paid to the owners of the entire 320-acres. All test oil from the Lawnichak 9-33 mineral test well will be held in tanks and not sold until the Dover 33 2016 Expansion Unit is approved, and will be credited to the owners within the newly approved 320 acre unit.

I find that adding the SE 1/4 of SW 1/4 of Section 28 and NE 1/4 of NW 1/4 of Section 33, T31N, R2W, Dover Township, Otsego County, Michigan, to the Dover 33-31N-2W, Guelph Dolomite/Ruff Formation Enhanced Recovery Unit will not adversely affect the rights and interests of any person in the original unit and will prevent waste and protect correlative rights, and therefore, the Dover 33 2016 Expansion Unit is approved.

CONCLUSIONS OF LAW

Based on the findings of fact, I conclude, as a matter of law:

1. The applicable spacing for the proposed Dover 33 2016 Expansion Unit is Order No. (A) 3-1-96 and Special Order No. 1-73. An exception to Special Order No. 1-73 and to Order No. (A) 3-1-96 may be granted by the Supervisor after a hearing.
2. The Petitioner is an owner within the drilling unit, and therefore, is eligible to drill and operate the Dover 33 2016 Expansion Unit. R 324.1206(4).
3. The Supervisor has jurisdiction of the subject matter and the persons interested therein.
4. 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, with respect to the determination made herein. 1996 MR 9, R 324.1204.

DETERMINATION AND ORDER

Based on the Findings of Fact and Conclusions of Law, the Supervisor of Wells determines that the proposed 320-acre Dover 33 2016 Expansion Unit may be formed as a new unit, and granted an exception to Special Order No. 1-73 and Order No. (A) 3-1-96.

NOW, THEREFORE, IT IS ORDERED:

1. A 320-acre CO₂ EOR secondary recovery unit is established as the Dover 33 2016 Expansion Unit comprising the following area: Section 28: S 1/2 of SE 1/4; SE 1/4 of SW 1/4, and Section 33: NE 1/4; NE 1/4 of NW 1/4, T31N, R2W, Dover Township, Otsego County, Michigan.
2. The Petitioner is named the Operator of the Dover 33 2016 Expansion Unit.
3. To the extent not inconsistent with this Order, the "Determinations and Order" provisions of Order No. (A) 3-1-96 shall apply to the new Dover 33 2016 Expansion Unit.
4. The Supervisor retains jurisdiction in this matter.
5. This Order shall be effective immediately.

Dated: Dec. 28, 2016



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