## STATE OF NEW MEXICO ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION TO CONSIDER:

> CASE NO. 15942 ORDER NO. R-14560

APPLICATION OF HILCORP ENERGY COMPANY FOR AN EXCEPTION TO THE WELL DENSITY REQUIREMENTS OF THE SPECIAL RULES AND REGULATIONS FOR THE BLANCO-MESAVERDE GAS POOL, RIO ARRIBA COUNTY, NEW MEXICO.

## **ORDER OF THE DIVISION**

## **BY THE DIVISION:**

This case came on for hearing at 8:15 a.m. on January 11, 2018, at Santa Fe, New Mexico, before Examiner William V. Jones.

NOW, on this 24<sup>th</sup> day of January, 2018, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner,

### FINDS THAT:

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(1) Due public notice has been given, and the Division has jurisdiction of this case and its subject matter.

(2) Hilcorp Energy Company ("Applicant"), seeks approval for an additional vertical well completion within an existing 299.21-acre (more or less) Mesaverde formation gas spacing and proration unit ("GPU") within the Blanco-Mesaverde (Prorated Gas) Pool (72319) consisting of Lots 1, 2, 3, 4, 5, the SE/4 SW/4 and the S/2 SE/4 (All) of irregular Section 7, Township 28 North, Range 7 West, NMPM, Rio Arriba County, New Mexico.

- (3) The following wells currently produce within this GPU:
  - San Juan 28-7 Unit Well No. 29 (API No. 30-039-07459) (Lot 4) Unit L
  - San Juan 28-7 Unit Well No. 246 (API No. 30-039-21649) Unit P
  - San Juan 28-7 Unit Well No.29A (API No. 30-039-21944) (Lot 2) Unit
    - San Juan 28-7 Unit Well No.242M (API No. 30-039-22359) (Lot 5) Unit M

(4) Well density, well locations, and gas spacing and proration unit size, within the Blanco-Mesaverde (Prorated Gas) Pool, are governed by Special Rules detailed in Division Order No. R-10987-A(1) effective December 2, 2002. That portion of those Special Rules pertaining to GPU size and well density (shown below) limit each GPU to simultaneous dedication and production from four wells, each quarter section within the GPU to two wells, and each quarter-quarter section within the GPU to one well. The relevant provisions are stated as follows:

# I. ACREAGE AND WELL LOCATION REQUIREMENTS

A. Standard GPU (Gas Proration Unit): A standard GPU in the Blanco-Mesaverde Pool shall be 320 acres (more or less) comprising any two contiguous quarter sections of a single section that is a legal subdivision of the U. S. Public Land Surveys.

#### **B.** Well density:

(1) Up to four (4) wells may be drilled on a standard GPU, as follows:

(a) the FIRST OPTIONAL INFILL WELL drilled on a GPU shall be located in the quarter section not containing the INITIAL Mesaverde well;

(b) the SECOND OPTIONAL INFILL WELL drilled on a GPU shall be located in a quarter-quarter section not containing a Mesaverde well and within a quarter section not containing more than one (1) Mesaverde well;

(c) the THIRD OPTIONAL INFILL WELL drilled on a GPU shall be located in a quarter-quarter section not containing a Mesaverde well and within a quarter section not containing more than one (1) Mesaverde well;

(d) at the discretion of the operator, the second or third optional infill well may be drilled prior to the drilling of the first optional infill well;

(e) no more than two wells shall be located within either quarter section in a GPU; and

(f) any deviation from the above-described well density requirements shall be authorized only after hearing.

(5) The following well is proposed as the fifth Mesaverde well completion to be produced and dedicated to the GPU and the third completion within the SE/4 (equivalent) quarter section:

San Juan 28-7 Unit Well No. 246M (API No. 30-039-27047) Unit O;

(6) The Applicant appeared at the hearing through counsel and presented testimony and facts as follows:

- (a) Applicant has done a reservoir study of its properties in the Blanco-Mesaverde (Prorated Gas) Pool and identified areas of underperformance. Applicant used decline analysis and log derived volumetric parameters to calculate ultimate recovery and original gas in place values and to map these points for its wells in the pool.
- (b) The GPU consisting of the Lots 1, 2, 3, 4, 5, SE/4 SW/4 and S/2 SE/4 (All) of Section 7 has been developed with four Mesaverde wells but estimated ultimate recovery from the GPU is still a low percentage of the original gas in place.
- (c) The Mesaverde formation members contribute each in varying amounts to the total production but the Point Lookout member is considered to produce more gas than does the Cliff House member.
- (d) The GPU has a wellbore currently producing from the Dakota formation that is available for completion in prospective members of the Mesaverde formation.
- (e) The proposed well could be downhole commingled without harm to the existing Dakota completion. Both the Dakota and Mesaverde formations in this area produce little water.
- (f) The proposed well is expected to recover additional gas in place within this GPU that would not otherwise be recovered.
- (g) The additional well-completion in this gas reservoir is not expected to cause harm to offsetting interests.
- (h) Section 7 is irregular and this GPU is bounded by offsets operated by Hilcorp Energy Company and BP America Production Company. The rule exception is being sought to place three wells in the SE/4.
- Notice of the intended well density exception was provided as per 19.15.4.12A(2) NMAC to all affected parties and no objections have been received.

The Division finds as follows:

(7) Applicant has shown this GPU is underdeveloped and the existing wells will not recover the percentage of gas in place that would be expected.

(8) The proposed additional well is needed to recover additional gas and is not expected to harm offsetting gas proration units.

(9) Notice was provided to affected parties and no other party entered an appearance in this case or otherwise opposed this application.

(10) This application should be approved to prevent waste and protect correlative rights.

## **IT IS THEREFORE ORDERED THAT:**

(1) The application of Hilcorp Energy Company is hereby approved and an exception is granted as follows to the well density provisions (Rule I.B) of the Special Rules and Regulations of the Blanco-Mesaverde (Prorated Gas) Pool (72319) as promulgated by Division Order No. R-10987-A(1).

(2) These five wells may be simultaneously dedicated to and may produce from within an existing 299.21-acre (more or less) Mesaverde gas spacing and proration unit ("GPU") consisting of Lots 1, 2, 3, 4, 5, the SE/4 SW/4 and the S/2 SE/4 (All) of irregular Section 7, Township 28 North, Range 7 West, NMPM, Rio Arriba County, New Mexico:

- San Juan 28-7 Unit Well No. 29 (API No. 30-039-07459) (Lot 4) Unit
- San Juan 28-7 Unit Well No. 246 (API No. 30-039-21649) Unit P
- San Juan 28-7 Unit Well No.29A (API No. 30-039-21944) (Lot 2) Unit
  - San Juan 28-7 Unit Well No.242M (API No. 30-039-22359) (Lot 5) Unit M

Additional Well:

• San Juan 28-7 Unit Well No. 246M (API No. 30-039-27047) Unit O

(3) Substitutions of other wells within this GPU for any of the wells detailed herein may be granted administratively after providing notice to affected parties as required in 19.15.4.12A(2) NMAC.

(4) Except as granted above, all spacing and location provisions of the Special Rules and Regulations of the Blanco-Mesaverde (Prorated Gas) Pool remain in effect.

(5) Jurisdiction is hereby retained for the entry of such further orders as the Division may deem necessary.

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