

**STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
STATE OF NEW MEXICO**

**IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
DIVISION FOR THE PURPOSE OF  
CONSIDERING:**

**APPLICATION OF DEVON ENERGY PRODUCTION  
COMPANY, L.P. FOR POOL EXPANSION AND SPECIAL  
POOL RULES, EDDY COUNTY, NEW MEXICO.**

**Case No. 14936  
Order No. R-13656-A**

**ORDER OF THE DIVISION**

**BY THE DIVISION:**

This case came on for hearing at 8:15 a.m. November 29, 2012, at Santa Fe, New Mexico, before Examiner Richard I. Ezeanyim.

NOW, on this 8<sup>th</sup> day of February, 2013, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner,

**FINDS THAT:**

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

(2) Devon Energy Production Company, L.P. ("Devon" or "Applicant") seeks an order (a) expanding the Northwest Fenton-Delaware Pool (**24330**) to include the W/2 of Section 13 and the NE/4 of Section 14, Township 21 South, Range 27 East, NMPM, Eddy County, New Mexico, and (b) establishing special rules and regulations for the pool, including a special depth bracket allowable of 200 barrels of oil per day for a standard 40-acre oil spacing and proration unit. Applicant also requests that the pool rules be made effective retroactive to the date of first Delaware production from the Lone Tree 14 State Com. Well No. 1 (**API No. 30-015-29524**) (the "Well"), located in the SE/4 NE/4 of Section 14, Township 21 South, Range 27 East, NMPM or, in the alternative, that overproduction from the Well be cancelled.

(3) The Pool was created by Division Order No. R-7555, dated July 1, 1984, and currently covers the following lands:

Township 21 South, Range 27 East, NMPM

Section 1: W/2 and SE/4  
Section 2: S/2  
Section 11: All  
Section 12: All

Township 21 South, Range 28 East, NMPM

Section 7: NW/4 and S/2  
Section 8: SW/4

(4) The discovery well for the Pool is the Big Eddy Unit Well No. 98 (API No. 30-015-24707), located in Unit F of Section 7, Township 21 South, Range 28 East, NMPM, Eddy County, New Mexico. It was an oil well with its top perforation in the Delaware formation at 2942 feet subsurface. Under Division rules, spacing in the Pool is 40 acres, with wells to be located no closer than 330 feet to a quarter-quarter section line. The Pool has a depth bracket allowable of 80 barrels of oil per day with a limiting gas-oil ratio of 2000 cubic feet of gas per barrel of oil.

(5) Applicant appeared at the hearing and presented the following testimony:

(a) Applicant is the operator of the Well, which was originally drilled to the Morrow formation. On November 4, 2011, Applicant re-completed the Well in the Brushy Canyon member of the Delaware formation, with a top perforation of 4908 feet subsurface. The Division placed the Well in the Pool.

(b) Since re-completion, the Well has produced at a rate of approximately 200 barrels of oil per day, in excess of the Pool's depth bracket allowable.

(c) Applicant has also (i) drilled and completed the Lone Tree 13 State Well No. 2H, a horizontal well completed in the Delaware formation, with a unit comprised of the W/2 W/2 of Section 13, and (ii) re-completed the vertical Lone Tree 13 Well No. 1 in the Delaware formation, with a unit comprised of the NE/4 SW/4 of Section 13, all in Township 21 South, Range 27 East, NMPM. As a result, Applicant requests that the Pool be expanded to include the following acreage:

Township 21 South, Range 27 East, NMPM

Section 13: W/2  
Section 14: NE/4

(d) The completed and productive Delaware interval in the Well is approximately 10 feet thick. Geologic mapping shows that the Brushy Canyon reservoir thickens to the east of the Well.

(e) Calculated permeability in the Brushy Canyon reservoir ranges from 5-45 md.

(f) The drive mechanism of the reservoir is solution gas drive.

(g) After the Well was re-completed, there was an initial modest decline in production, but soon production leveled off at approximately 200 BOPD. Similar behavior was noted in the Lone Tree 13 Well No. 1, in Section 13. This behavior is anomalous for Delaware wells, which usually have a very high initial decline, eventually leveling off at a rate substantially below the initial potential of a well.

(h) The gas-oil ratio in both the Well and the Lone Tree 13 Well No. 1 has remained at or below 1000 cubic feet of gas per barrel of oil, indicating no harm to the reservoir from producing at rates higher than the 80 BOPD allowable.

(i) There is no electricity at the wellsites of Applicant's wells. Therefore, Applicant must use gas operated pumping units. Restricting a pump's cycles to limit production would be difficult due to safe operating limits of the pumping equipment. If a well is shut down for a significant period of time, there may be formation damage and the well would not recover to its last producing rate.

(j) There is no evidence that there is harm to offset interest owners by increasing the allowable. In any event, Applicant has taken action to drill or re-complete wells to the Delaware formation on offsetting acreage.

**The Division Concludes as follows:**

(6) In these low permeability solution gas drive reservoirs without gravity drainage, high production rate does not affect ultimate recovery. High production rate does not damage or harm the reservoir. On the other hand, lower production rates will result in lower ultimate recoveries. At lower production rate, gas migrates rapidly out of solution resulting in rapid dissipation of reservoir energy.

(7) The granting of this application is in the interests of conservation, the prevention of waste, and protection of correlative rights.

**IT IS THEREFORE ORDERED THAT:**

(1) The application of Devon Energy Production Company, L.P. to (a) expand the Northwest Fenton-Delaware Pool to include the W/2 of Section 13 and the NE/4 of Section 14, Township 21 South, Range 27 East, NMPM, Eddy County, New Mexico, (b) establish special rules and regulations for the pool, including a special depth bracket allowable of 200 barrels of oil per day for a standard 40-acre oil spacing and proration unit, and (c) make the pool rules effective retroactive to the date of first

Delaware production from the Lone Tree 14 State Com. Well No. 1 (**API No. 30-015-29524**), located in the SE/4 NE/4 of Section 14, Township 21 South, Range 27 East, NMPM, Eddy County, New Mexico, is hereby approved.

(2) The following "**Temporary Special Rules and Regulations for the Northwest Fenton-Delaware Pool**" are hereby adopted:

**Rule 1:** Each well completed or recompleted in the Northwest Fenton-Delaware Pool, or within one mile thereof and not nearer to or within the limits of another Delaware pool, shall be drilled, spaced, operated, and produced in accordance with the Special Rules hereinafter set forth.

**Rule 2:** The allowable for a standard proration unit shall be based on a depth bracket allowable of 200 barrels of oil per day. In the event there is more than one well on a 40-acre proration unit, the operator may produce the allowable assigned to the unit from the wells in any proportion.

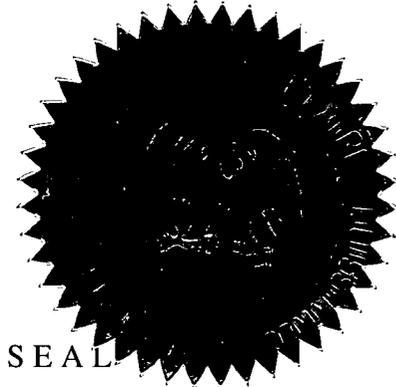
**Rule 3:** All other rules shall conform to the Division's statewide rules.

(3) The effective date for these Temporary Special Rules and Regulations shall be November 1, 2011.

(4) These temporary special pool rules and regulations shall expire on March 1, 2016, unless extended or made permanent by a Division Order entered on or before this date.

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

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.



SEAL

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

A handwritten signature in cursive script, appearing to read "Jami Bailey".

JAMI BAILEY  
Director