

**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 FOR  
THE PURPOSE OF CONSIDERING:**

**CASE NO. 14394  
ORDER NO. R-12444-B**

**APPLICATION OF CONOCOPHILLIPS COMPANY AND BURLINGTON  
RESOURCES OIL & GAS COMPANY, LP TO EXPAND THE HORIZONTAL  
LIMITS OF THE UTE DOME-PARADOX GAS POOL TO INCLUDE ALL OF  
SECTION 23, T32N, R14W AND THE CONCOMITANT CONTRACTION OF THE  
BARKER DOME-PARADOX POOL, THE BARKER DOME-AKAH/UPPER  
BARKER CREEK POOL, THE BARKER DOME-DESERT CREEK POOL AND  
THE BARKER DOME-ISMAY POOL, SAN JUAN COUNTY, NEW MEXICO.**

**ORDER OF THE DIVISION**

**BY THE DIVISION:**

This case came on for hearing at 8:15 a.m. on October 29, 2009, at Santa Fe, New Mexico, before Examiner William V. Jones.

NOW, on this 10<sup>th</sup> day of February, 2010, 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) ConocoPhillips Company and Burlington Resources Oil & Gas Company, LP ("applicant" or "ConocoPhillips") seeks to expand the horizontal limits of the Ute Dome-Paradox Gas Pool to include all of Section 23, Township 32 North, Range 14 West, NMPM, in San Juan County New Mexico. ConocoPhillips also seeks to contract the horizontal limits of four existing Barker Dome pools to exclude the NW/4 of Section 23.

(3) The Commission created the Ute Dome-Paradox Gas Pool and the Barker Creek- Paradox (Pennsylvanian) Gas Pool in Order No. R-13 issued in Case No. 213 on March 15, 1950.

(4) The Barker Creek-Paradox (Pennsylvanian) Gas Pool as defined by that

order included the NW/4 of Section 23, Township 32 North, Range 14 West, NMPM, in San Juan County, New Mexico.

(5) By Order No. R-46 issued in Case No. 237 on December 29, 1950, the Commission promulgated Special Rules for the Barker Creek-Paradox (Pennsylvanian) Gas Pool and for the Ute Dome-Paradox Gas Pool, including one well per 640-acre gas spacing with the well to be located no closer than 1650 feet from the outer boundary of the spacing unit nor closer than 330 feet from the center of the spacing unit.

(6) The Division in Order No. R-46-A in Case No. 11089 on February 13, 1995 changed the Pool name of the Barker Dome-Paradox (Pennsylvanian) Gas Pool to the Barker Dome-Paradox Gas Pool, contracted the vertical limits to include only the lowest productive intervals, and created three additional Barker Dome pools encompassing the upper productive formations – listed from deepest to shallowest as: Akah/Upper Barker Creek, Desert Creek, and Ismay.

(7) Said Order No. R-46-A also created temporary Special Pool Rules for each of these three new pools. The Special Pool Rules for the Desert Creek and Ismay formations and related pools were permanently adopted in Division Order No. R-46-C, April 3, 1997. That order also extended for two additional years the temporary Special Rules governing wells completed in the Akah/Upper Barker Creek formations.

(8) Within the Barker Dome, the existing gas well spacing and location rules and relative depths (stratigraphic equivalent to the Ute Well No. 16 in La Plata County, Colorado) can be summarized as follows:

- |  |                              |
|--|------------------------------|
| Barker Dome-Ismay Gas Pool   | (8502 feet to 8693 feet)     |
| One well per 160-acre Gas Unit   |                              |
| Well to be located no closer than 790 feet from outer edge of spacing unit and no closer than 130 feet from the quarter-quarter section lines. |                              |
| <br>Barker Dome-Desert Creek Gas Pool  | <br>(8693 feet to 8809 feet) |
| One well per 320-acre Gas Unit   |                              |
| Well to be located no closer than 790 feet from outer edge of spacing unit and no closer than 130 feet from the quarter-quarter section lines. |                              |
| <br>Barker Dome-Akah/Upper Barker Creek Gas Pool   | <br>(8809 feet to 9134 feet) |
| Temporary Rules Expired, Statewide Rules in effect as follows:   |                              |
| One well per 640-acre Gas Unit   |                              |
| Well to be located no closer than 1200 feet from outer edge of spacing unit and no closer than 130 feet from the quarter section line.         |                              |
| <br>Barker Dome-Paradox Gas Pool   | <br>(9134 feet to 9430 feet) |
| One well per 640-acre Gas Unit   |                              |

Well to be located no closer than 1650 feet from outer edge of spacing unit and no closer than 330 feet from the center of the Gas Spacing Unit.

(9) Horizontal limits of each of the four Barker Dome Gas Pools currently include the NW/4 of Section 23 but do not include the remainder of Section 23.

(10) The Ute Dome-Paradox Gas Pool currently bounds Section 23 to the east, southeast and south but does not include any acreage in Section 23.

(11) By Order No. R-12444 issued in Case No. 13544 on October 17, 2005, the Division amended the Special Rules of the Ute Dome-Paradox Gas Pool to allow one well per quarter section within a standard 640-acre gas spacing unit and relaxed the setback requirements so as to allow wells no closer than 660 feet to the outer boundary of a section line and 330 feet from a quarter section line.

(12) ConocoPhillips presented testimony at this hearing showing that:

a. The Barker Dome and the Ute Dome are side by side distinct Pennsylvanian aged geologic structures separated by a NE-SW trending deep seated fault located just outside the San Juan Basin within the "Four Corners Platform". Both structures provide traps for natural gas and have been produced from at least four separate carbonate reservoirs for over 50 years.

b. The Barker Dome has been the more prolific of the two and within the Barker Dome, the lowermost interval called the Alkali Gulch/Lower Barker Creek has been the most productive. Along with the gas, this interval sometimes produces high volumes of very saline water, some carbon dioxide and hydrogen sulfide. These factors indicate well density should be closer than 1 well per 640-acres.

c. Section 23 is cut by the fault which separates these two structures. A portion of the NW/4 of Section 23 is located on the Barker Dome side, but the majority of Section 23 is within the Ute Dome. ConocoPhillips predicts there to be no significant difference between Section 23 and the acreage within the Ute Dome-Paradox Gas Pool.

d. Since the NW/4 of Section 23 is currently contained in the Barker Dome pools, a standard 640-acre gas spacing unit cannot be created in Section 23 within either the Barker Dome or the Ute Dome. To drill and produce Paradox gas wells in Section 23, the Barker Dome or the Ute Dome must grow to encompass this entire section.

e. ConocoPhillips in this case asks for the spacing and well location relief granted for the Ute Dome-Paradox Pool in Order No. R-12444, be applied to

Section 23.

f. All of Section 23 is in the Ute Mountain Ute Tribal lands and ConocoPhillips is the 100 percent leaseholder. XTO Energy, Inc. is the only other operator in this vicinity. There are multiple jurisdictional agencies that apply procedures to this area.

g. ConocoPhillips reported that this application is supported by the Division's district geologist in Aztec.

(13) To include all of Section 23 within the Ute Dome-Paradox Gas Pool with its Special Rules would enable ConocoPhillips to attempt the recovery of gas that might not otherwise be recovered.

(14) The applicant notified all affected parties in Section 23 and in surrounding sections within 1 mile. No parties opposed this case or otherwise appeared at the hearing.

(15) Approval of this application will protect correlative rights and prevent waste.

**IT IS THEREFORE ORDERED THAT:**

(1) The application of ConocoPhillips Company and Burlington Resources Oil & Gas Company, LP to extend the Ute Dome-Paradox Gas Pool (86760) to cover all of Section 23, Township 32 North, Range 14 West, NMPM, in San Juan County, New Mexico is hereby approved.

(2) The following pools are hereby contracted to exclude the NW/4 of Section 23 and shall not henceforth cover acreage within Section 23:

Barker Dome-Ismay Gas Pool (96354)  
Barker Dome-Desert Creek Gas Pool (96353)  
Barker Dome-Akah/Upper Barker Creek Gas Pool (96352)  
Barker Dome-Paradox Gas Pool (71560)

(3) Jurisdiction is hereby 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 dark ink, appearing to read "Mark E. Fesmire".

MARK E. FESMIRE, P. E.  
Acting Director