# 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. 14280 ORDER NO. R-13109

APPLICATION OF BURLINGTON RESOURCES OIL & GAS COMPANY LP FOR AN EXCEPTION TO THE WELL DENSITY REQUIREMENTS (Low Productivity Area) OF RULE 7(d) OF THE SPECIAL POOL RULES FOR THE BASIN-FRUITLAND COAL GAS 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 March 5, 2009, at Santa Fe, New Mexico, before Examiners Terry Warnell and David K. Brooks.

NOW, on this 14<sup>th</sup> day of April, 2009, the Division Director, having considered the testimony, the record, and the recommendations of the Examiners,

## FINDS THAT:

- (1) Due public notice has been given, and the Division has jurisdiction of this case and its subject matter.
- (2) Burlington Resources Oil & Gas Company LP ("Applicant" or "Burlington") is the current operator of the E/2 of Section 13, Township 32 North, Range 8 West, NMPM, San Juan County, New Mexico.
- (3) Burlington seeks an exception to the well density provisions (Low Productivity Area) of the Special Pool Rules for the Basin-Fruitland Coal Gas Pool (71629) within an existing 320-acre Fruitland Coal spacing and proration unit ("GPU") comprised of the E/2 of Section 13, Township 32 North, Range 8 West, NMPM, San Juan County, New Mexico.
- (4) This spacing unit currently contains two vertical gas wells completed in the Basin-Fruitland Coal Gas Pool from the:

- a) Reese Mesa Well No. 101 (API No. 30-045-26977) located 1100 feet from the South line and 945 feet from the East line, Unit P of Section 13, ["the No. 101 Well"] and the
- b) Reese Mesa Well No. 101S (API No. 30-045-332886) located 1870 feet from the North line and 850 feet from the East line, Unit H of Section 13, ["the No. 101S Well"].
- (5) Applicant proposes to drill a third well, Reese Mesa Well No. 101, a horizontal wellbore to be drilled off the existing vertical wellbore No. 101. The lateral surface location would be in Unit P and the bottomhole location in Unit B. Simultaneous dedication of the requested lateral well with the No. 101S Well (Unit H) would permit production of these two Fruitland Coal Gas wells in the same quarter section (NE/4).
- (6) Notice of this application was sent to operators of all offsetting spacing units and if operated by Burlington then to the working interest owners within those adjoining spacing units. No affected party appeared at the hearing or expressed interest in opposing this application.
- (7) Well density within the Low Productivity Area of the Basin-Fruitland Coal Gas Pool is governed by Special Pool Rules detailed in Division Order No. R-8768 thru R-8768-F. Rule 7(d)(1) limits each 320-acre GPU to only two (2) wells and restricts the placement of these wells to one per quarter section.
- (8) The applicant presented engineering testimony and exhibits at the hearing to the affect that:
  - (a) Burlington provided notice of its application in this case to operators of all offsetting spacing units and if operated by Burlington then to the working interest owners within those adjoining spacing units within the Basin-Fruitland Coal Gas Pool. The minerals in the subject spacing unit are federally owned and administered by the Bureau of Land Management.
  - (b) Burlington presently operates two Fruitland Coal Gas wells in the E/2 of Section 13, Township 32 North, Range 8 West, NMPM, San Juan County, New Mexico.
  - (c) Applicant presented schematics of regional and local production and cumulative data, which showed production trends going basically from southwest to northeast. It also presented a cross-section with four electric logs with the Fruitland Coal gas tops marked on the logs.
  - (d) Applicant's expert engineering witness believes this NE/4 of Section 13 is an ideal candidate for an infill pilot because it contains the No. 101S Well in a relatively lower producing area of the pool as well as the No. 101 Well in the better area to the south.

- (e) The No. 101S Well in the NE/4 of Section 13 is unsuitable for reentry due to small casing size.
- (f) The No. 101 Well in the SE/4 has 7-inch casing and is the well applicant proposes to re-enter, cut two windows and drill two Fruitland Coal gas laterals in two different coal seams.
- (g) The stacked laterals will originate in the 101 Well and extend out approximately 3,300 feet in a northwesterly direction and will pass 500 feet west of the 101S Well.
- (h) The two target coal seams are 7 feet and 19 feet in height in the defined "low productivity area" of the Basin-Fruitland Coal Gas Pool where permeability and gas content is not as high as in the fairway.
- (i) These lower coals are relatively continuous and closer spaced coalbed methane wells (if optimally completed) are shown by computer models to affect the reservoir by dewatering (de-pressuring) it faster, accelerating reserves, and increasing the recovery factor.
- (j) Burlington presented decline curve analysis, and coalbed methane volumetric calculations at the hearing and believes current production recovery factor is 0.9%.
- (k) The applicant presented supporting decline curve analysis and volumetric drainage numbers convincingly showing that the two existing wells and the proposed third well can produce simultaneously without affecting each other or harming neighboring wells.
- (l) Applicant's expectation is to recover close to 50% of the remaining reserves in the drill block by adding this lateral well.

The Division, after reviewing the case and the testimony, concludes that:

- (9) The Special Pool Rules do not allow more than one Fruitland Coal gas well per quarter section. Increased density wells within this basin-wide coalbed methane pool should not be approved routinely without adequate justification and should preferably only be approved on a Pool wide basis.
- (10) In this instance, these wells are located in the defined "low productivity area" of the Basin-Fruitland Coal Gas Pool where permeability and gas content is not as high as in the fairway.
- (11) All affected parties have been properly noticed and have not objected to this application.

- (12) Applicant presented evidence that the requested additional well within the E/2 of Section 13 is necessary to prevent waste by allowing the recovery of natural gas that may otherwise not be produced.
- (13) All spacing and location provisions of the Special Pool Rules of the Basin-Fruitland Coal Gas Pool should remain in effect, except as exempted in this order.
  - (14) Accordingly, the application should be approved.

### IT IS THEREFORE ORDERED THAT:

- (1) Burlington Resources Oil & Gas Company LP is hereby granted an exception to the well location and well density requirements within Rule 7 of the "Special Rules for the Basin-Fruitland Coal Gas Pool," as established by Commission Order No. R-8768-F, as follows:
  - (a) The Reese Mesa Well No. 101-Lateral shall be drilled at the same surface location as the Reese Mesa Well No. 101 Unit P (SE/4 SE/4) of Section 13, Township 32 North, Range 8 West, extending out approximately 3,300 feet to a bottomhole location in Unit B (NW/4 NE/4) of Section 13, Township 32 North Range 8 West, NMPM, San Juan County, New Mexico; and
  - (b) The Reese Mesa Well No. 101-Lateral shall be dedicated as the third well in a standard 320-acre Fruitland Coal gas spacing and proration unit consisting of the E/2 of Section 13. The other two wells in the E/2 spacing unit are:
    - (i) The Reese Mesa Well No. 101 (API No. 30-045-26977) a standard Fruitland Coal Gas well location, Unit P of Section 13, Township 32 North, Range 8 West, and
    - (ii) The Reese Mesa Well No. 101S (API No. 30-045-33286) a standard Fruitland Coal Gas well location, Unit H of Section 13, Township 32 North, Range 8 West.
- (2) Except as granted above, all spacing and location provisions of the Special Pool Rules for the Basin-Fruitland Coal Gas Pool shall remain in full force and effect.
- (3) Once sufficient production data is gathered or a maximum of three years hence, the operator shall furnish to the Division a technical report of the results of this project.
- (4) Jurisdiction is hereby retained for the entry of such further orders as the Division may deem necessary.

ير وروي ته



STATE OF NEW MEXICO OIL CONSERVATION DIVISION

MARK E. FESMIRE, P.E.

Director