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February 25, 1997

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HAND DELIVERED

*NEW MEXICO BOARD OF LEGAL SPECIALIZATION RECOGNIZED SPECIALIST IN THE AREA OF NATURAL RESOURCES-OIL AND GAS LAW

JASON KELLAHIN (RETIRED 1991)

W. THOMAS KELLAHIN*

11745

Mr. William J. LeMay, Chairman Oil Conservation Commission 2040 South Pacheco Santa Fe, New Mexico 87505

Re: REQUEST FOR COMMISSION HEARING

Application of Burlington Resources Oil & Gas Company to amend Division Rules 104.B(2)(a) and 104.C(3)(a) and to adopt New Rules 104.B(2)(b) and 104.C(3)(b) for the establishment of 640-acre spacing, including well location requirements, for gas production below the base of the Dakota formation in San Juan, Rio Arriba, Sandoval and McKinley Counties, New Mexico.

Dear Mr. LeMay:

cc:

On behalf Burlington Resources Oil & Gas Company, please find enclosed our request for a hearing before the New Mexico Oil Conservation Commission to consider changes to the Division's statewide general rules and regulations for "deep gas" well spacing in the San Juan Basin.

We request that this matter be set for hearing on the March 19, 1997 docket.

W. Thomas/Kellahin

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Burlington Resources Oil & Gas Company
Attn: Alan Alexander

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

IN THE MATTER OF THE APPLICATION OF BURLINGTON RESOURCES OIL & GAS COMPANY TO AMEND DIVISION RULES 104.B(2)(a) AND 104.C(3)(a) AND TO ADOPT NEW RULES 104.B(2)(b) AND 104.C(3)(b) FOR THE ESTABLISHMENT OF 640-ACRE SPACING, INCLUDING WELL LOCATION REQUIREMENTS, FOR GAS PRODUCTION BELOW THE BASE OF THE DAKOTA FORMATION IN SAN JUAN, RIO ARRIBA, SANDOVAL AND MCKINLEY COUNTIES, NEW MEXICO

CASE: // 745

APPLICATION

COMES NOW BURLINGTON RESOURCES OIL & GAS COMPANY ("Burlington") by and through its attorneys, Kellahin & Kellahin, and applies to the New Mexico Oil Conservation Commission ("Commission") to amend Division Rule 104.B(2)(a) and Rule 104.C(3)(a) and to adopt a new Rule 104.B(2)(b) and Rule 104.C(3)(b) for the establishment of 640-acre spacing, including well location requirements, for gas production below the Pre-Cretaceous geologic time period (being the base of the Dakota formation) in San Juan, Rio Arriba, Sandoval and McKinley Counties, New Mexico and in support thereof states:

- 1. Effective August 12, 1935, the Commission adopted Order 4 and established General Rules and Regulations for the Conservation of Oil and Gas in New Mexico including Rule 2 GENERAL SPACING RULES which provided that "wildcat" well locations shall not be closer than 330 feet to any lease or property line..." but which did not specify the size of a well's spacing unit.
- 2. From 1935 to 1950, the practice of the Commission was to establish the size of a gas well's spacing unit for specific pools when it issued a "proration order" which set producing allowables for that pool.
- 3. In 1946, the Commission issued Circular No. 6, in which it noted that "Rule 2 appears to be repealed by implication, and is not reproduced since it also tends to confusion (sp) with later spacing requirements. See Sec 1. State-wide Proration Order 637, at end of Division 3-Proration."
- 4. Proration Order 637, effective March 1, 1946, declared that "a unit of proration shall consist of 40 acres..."

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- 5. Effective January 1, 1950, the Commission revised its General Rules and Regulations and adopted Rule 104, which provided, in part, that "Each well drilled within a defined gas pool shall be located on a tract consisting of approximately 160 surface contiguous acres substantially in the form of a square..." and with wells located not closer than "660 feet" to the outer boundary.
- 6. December 1, 1950, the Commission revised its Rules and Regulations including amending Rule 104 to designate 160-acre gas well spacing for San Juan, Rio Arriba and Sandoval Counties, New Mexico, with well locations not closer than 990 feet to the outer boundary.
- 7. On December 29, 1950, the Commission issued Order R-46 which established 640-acre spacing rules for the Barker Creek (Paradox-Pennsylvanian) Gas Pool and the Ute Dome (Paradox-Pennsylvanian) Gas Pool.
- 8. On October 17, 1996, the Commission issued Order R-46-B which redesignated the Barker Creek-Paradox (Pennsylvanian) Gas Pool (640-acre spacing) as the Barker Dome-Paradox Gas Pool (640-acre spacing) with stratigraphic vertical limits of 9,134 feet to 9,430 feet as specified on the log of the Ute Well No 16.
- 9. Except for these two pools, the "deep gas" reservoirs from the base of the Dakota formation to the base of the Pennsylvanian formation in the San Juan Basin have not been effectively explored because operators have confined exploration to the "shallow" gas reservoirs from the surface to the base of the Dakota formation.
- 10. There exists a substantial opportunity for operators in the San Juan Basin to commence more significant efforts to explore and produce the deep gas in the San Juan Basin.
- 11. Division Rule 104 **currently** provides for 160-acre gas spacing for production below the base of the Dakota formation in the San Juan Basin ("deep gas"):

Rule 104.B(2)(a) for wildcat well locations:

(a) Wildcat Gas Wells. In San Juan, Rio Arriba, Sandoval and McKinley Counties, a wildcat well which is projected to a gas-producing horizon shall be located on a designated drilling tract consisting of 160 surface contiguous acres, more or less, substantially in the form of a square which is a quarter section, being a legal subdivision of the U.S. Public Land Survey, and shall be located not closer than 790 feet to any outer boundary of the tract nor closer than 130 feet to any quarter-quarter section line or subdivision inner boundary.

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Rule 104.C(3)(a) for development well locations:

- (a) <u>Gas Wells.</u> Unless otherwise provided in special pool rules, each development well for a defined gas pool shall be located on a designated drilling tract consisting of 160 surface contiguous acres, more or less, substantially in the form of a square which is a quarter section, being a legal subdivision of the U.S. Public Land Survey, and shall be located not closer than 790 feet to any outer boundary of the tract nor closer than 130 feet to any quarter-quarter section line or subdivision inner boundary.
- 12. Under the current rules, an Operator is required to drill a deep gas well on 160-acre spacing and then petition the Division for the create of a deep gas pool with special rules and regulations including spacing units larger than 160-acres.
- 13. The 160-acre spacing unit size for deep gas has discouraged efforts to develop the deep gas in the San Juan Basin because:
 - (a) deep gas wells consistently drain more than 160-acres;
 - (b) a 160-acre unit does not provide sufficient gas-in-place to economically justify the drilling of deep gas wells which currently cost in excess of one million dollars to drill and complete;
 - (c) operators do not want to assume the risk of either (a) drilling a deep gas well on 160-acre spacing only to have the owners in the adjoining 160-acre drill another deep gas well which is not necessary in order to drain the area or (b) pooling the adjoining tracts into a 640-acre unit after the well is drilled only to have the adjoining owners avoid assuming any of the risk of drilling the deep gas well;
 - (d) it is extremely difficult to consolidate 640-acres into a voluntary spacing unit for the drilling of wildcat and development deep gas wells;
 - (e) compulsory pooling is available only for spacing units consistent with the well spacing adopted by the Division which is currently limited to 160 acres; and
 - (f) future deep gas wells are estimated to costs in excess of one million dollars and the estimate ultimate recovery for deep gas wells requires the dedication of 640 acres to provide sufficient gas reserves to justify the drilling of such wells.

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- 14. Burlington has developed Barker Creek-Barker Dome area and now has in its possession sufficient geologic and reservoir engineering data from which to project that 640 acre spacing is appropriate of the San Juan Basin area.
- 15. Based upon its experience, Burlington **recommends** that the Commission allow for 640-acre units for deep gas wells in the San Juan Basin by **amending** Rule 104.B(2)(a) and Rule 104.C(3)(a) and **adopting a new** Rule 104.B(2)(b) and Rule 104.C(3)(b) as follows:

For wildcat wells Rule 104.B(2)

- (a) Shallow Wildcat Gas Wells. In San Juan, Rio Arriba, Sandoval and McKinley Counties, a wildcat well which is projected to a gas-producing horizon in a formation younger than the Dakota formation, or in the Dakota formation, which was created and defined by the Division prior to March 1, 1997, shall be located on a designated drilling tract consisting of 160 surface contiguous acres, more or less, substantially in the form of a square which is a quarter section, being a legal subdivision of the U.S. Public Land Survey, and shall be located not closer than 790 feet to any outer boundary of the tract nor closer than 130 feet to any quarter-quarter section line or subdivision inner boundary.
- (b) <u>Deep Wildcat Gas Wells.</u> In San Juan, Rio Arriba, Sandoval and McKinley Counties, a wildcat well which is project to a gas-producing formation in a formation older than the Dakota formation which was created and defined by the Division after March 1, 1997, shall be located on a designated drilling tract consisting of 640 surface contiguous acres, more or less, substantially in the form of a square which is a section, being a legal subdivision of the U.S. Public Land Survey, and shall be located not closer than 1200 feet to any outer boundary of the tract nor closer than 130 feet to any quarter-guarter section line, nor closer than 10 feet to any quarter-quarter section line or subdivision inner boundary.
- (c) Current Rules 104.B(2)(b), (c) and (d) shall be renumbered at Rule 104.B(2) (c), (d) and (e) respectively.

For Development Wells Rule 104.C(3)

(a) Gas Wells. Unless otherwise provided in special pool rules, each development well for a defined gas pool in a formation younger than the

Dakota formation, or in the Dakota formation, which was created and defined by the Division prior to March 1, 1997, shall be located on a designated drilling tract consisting of 160 surface contiguous acres, more or less, substantially in the form of a square which is a quarter section, being a legal subdivision of the U.S. Public Land Survey, and shall be located not closer than 790 feet to any outer boundary of the tract nor closer than 130 feet to any quarter-quarter section line or subdivision inner boundary.

- (b) Gas Wells. Unless otherwise provided in special pool rules, each development well for a defined gas pool in a formation older than the Dakota formations which was created and defined by the Division after March 1, 1997, shall be located on a designated drilling tract consisting of 640 surface contiguous acres, more or less, substantially in the form of a square which is a section, being a legal subdivision of the U.S. Public Land Survey, and shall be located not closer than 1200 feet to any outer boundary of the tract nor closer than 130 feet to any quarter section line, nor closer than 10 feet to any quarter-quarter section line or subdivision inner boundary.
- 16. The amendments of Rule 104 as set forth in paragraph (9) above, will prevent the economic loss caused by the drilling of unnecessary wells; will avoid the risks associated with the drilling of an excessive number of wells, will increase the opportunity to drill for "deep gas" by the consolidation of tracts into larger spacing units and will otherwise prevent waste and protect correlative rights.
 - 17. Notice has been sent to all of the operators in the San Juan Basin.

WHEREFORE, Applicant requests that this application be set for hearing before the New Mexico Oil Conservation Commission on the 19 day of March, 1997 and that after notice and hearing the application be approved.

Respectfully submitted:

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