

Case 12119

**Louis J. Mazzullo, RG**  
**Certified Petroleum Geologist**

Post Office Box 66657

Albuquerque, New Mexico 87193  
E-Mail: mazzullo@nmia.com

Phone (505) 890-0080  
Fax (505) 890-4991

## FACSIMILE TRANSMITTAL

TO: Mike Stogner  
COMPANY: New Mexico Oil Conservation Division  
CITY: Santa Fe, New Mexico  
FAX NO.: 1-505-827-8177

Date: February 23, 1999

Time: 11:00 a.m.

No. Pages including cover: 2

SUBJECT: PROPOSED RULE 104 CHANGES

Mike:

I have read a draft of your proposed changes to Rule 104, covering statewide pool rules for oil and gas. I have some objections to these proposals, especially in regard to deep gas pools in southeastern New Mexico, that I was hoping you could address.

First of all, I want to go on record as opposing the new setback and infill rules covering 320-acre deep gas pools, and my concerns are focused on southeastern New Mexico. I realize that part of the rationale behind these changes was the low number of objections (21) filed over 580 applications you received. Assuming that these 580 applications covered everything from shallow oil to deep gas pools in both the Permian and San Juan basins, I think this basis trivializes the 21 objections, which were brought against those cases with valid concerns.

Another assumption that I disagree with is your statement that "...most of New Mexico's deep gas pools are in advanced stages of exploitation." This statement implies that we have discovered all there is to find, and now it's time to develop what we have. In these days of depressed oil prices, many operators, especially those in the Permian Basin, are turning to exploring for deep Atoka and Morrow gas reservoirs. I know, because I have seen a lot of interest in my consulting services regarding the Morrow play. New discoveries are being made every day and new pools being delineated. Because the Morrow and Atoka plays have been so cyclic over the last 30 years, we are far from having found everything, and I can assure you there is a lot of undiscovered as well as underdeveloped Atoka and Morrow fields out there. In terms of the big picture, Morrow and Atoka development in the Permian basin is relatively sporadic compared to other plays.

A second statement you make in your proposal bothers me even more. You state "Because deep gas wells seldom actually drain 320 acres, the concern about offset drainage has not often been demonstrated..". This statement is quite arbitrary, especially since the deep gas development in southeastern NM has been so sporadic, and we haven't really gotten into the types of correlative rights "fist fights" we may see in the near future. Witness the recent deep Atoka gas play in the Vacuum Deep area of Lea County, where step-out development has shown the Atoka channel sands capable of drainage up to 3 MILES away from one another. We would not have known this if we ourselves hadn't just now drilled a well 3 miles from wells that were drilled in the late 70's. This gap in drilling development has prevented us from realizing until now what some of these reservoirs are capable of

doing. There are other examples that can be cited of drainage that affects more than 320 acres in both the Atoka and Morrow basin-wide, and no doubt as more operators chase these plays in the next year or two, we will see more. The setback distances you propose, as has been the case with the current rules, are often meaningless because geology hardly ever cooperates with artificially-imposed boundaries.

The OCD has been very efficient in the past several years in turning around cases and granting administrative approvals. Although some of your proposals regarding shallow and deep oil pools may have some validity, I think deep gas pools in southeastern New Mexico cannot be easily categorized in terms of their drainage potential and ability of specific well spacings to adequately produce these complex sands. I believe the current renewed interest in deep Permian Basin gas plays is going to last longer than previous booms in this area, because of a brighter outlook for natural gas prices versus oil prices. Consequently, I expect to see a lot of activity focused on the Atoka and Morrow for years to come and new field discoveries being made. I believe that exceptions to deep gas pool rules should continue to be considered on a case-by-case basis because the geology is too complex and reservoir performance too unpredictable to try and cover every contingency with the proposed rules. The proposed deep gas spacing rule changes are going to open a much larger can of worms than would be the case if the OCD continued with the current 320-acre spacing statutes.

I would like to hear your thoughts on my concerns and welcome any questions you may have.

Lou