KELLAHIN AND KELLAHIN
ATTORNEYS AT LAW
EL PATIO BUILDING
117 NORTH GUADALUPE
POST OFFICE BOX 2265
SANTA FE, NEW MEXICO 87504-2265

W. THOMAS KELLAHIN*

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

JASON KELLAHIN (RETIRED 1991)

TELEPHONE (505) 982-4285
TELEFAX (505) 982-2047

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HAND DELIVERED

Mr. Michael E. Stogner
Hearing Examiner
Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87502

Re: ***NMOCD Cases 10793, 10981 & 11004***
Infill Drilling Pecos Slope Abo Gas Pool
Re: ***NMOCD Case 11421***
Infill Drilling South Pecos Slope Abo Gas Pool
Re: ***NMOCD Case 11422***
Infill Drilling West Pecos Slope Abo Gas Pool

Dear Mr. Stogner:

On behalf of Tide West Oil Company, I wish to express our appreciation to you for providing us with both the time and opportunity to review the data submitted by Yates Petroleum Corporation in support of its request for the adoption of infill drilling for the three different Pecos Slope Abo Gas Pools at the November 2, 1995 hearing held in Roswell, New Mexico.

Tide West Oil Company supports the conclusion that 80-acre infill wells are needed in **selected** portions of the greater Pecos Slope Abo Gas Pool. This is based upon:

(1) Because the reservoir is composed of multiple, narrow (<1 mile) sinuous channel sands, some sands may not have been penetrated by the existing 160-acre well. In this instances, a second well would be needed to produce "new" reserves form those sands underlying said unit.

(2) In some instances, it appears that the existing wells will be unable to effectively drain all the mappable reservoir underlying a 160-acre unit, and an 80-acre infill well could recover "new" reserves deemed unrecoverable by the existing well. However, the actual calculation of the "new" reserves is extremely difficult due to commingled production from multiple Abo sands within the pool.

Although Tide West Oil Company concurs that 80-acre infill wells may be needed in selected areas, Tide West thinks that the adoption of **pool-wide** 80-acre infill drilling rules is not supported by the evidence and may result in the drilling of unnecessary wells, thereby promoting waste and not protecting correlative rights. Yates is to be commended for their thorough study of the northern portion of the Pecos Slope Abo Gas Pool, however, Tide West Oil Company does not feel that infill drilling is needed for all three pools on a pool wide basis. Tide West Oil Company maintains that option 80-acre infill drilling will create the situation wherein an offset operator will be forced into drilling another wells in the short term to protect correlative rights. Our reasons for this conclusion follow:

GEOLOGY

The testing of 80-acre infill wells was done in the"heart of the pool" where there is good sand thickness and good cumulative production. Yates has not demonstrated that these same reservoir attributes characterize the entire Abo system in all three regulatory pools in question. So it does not logically follow that the results of the pilot programs may be deemed representative of the entire Abo trend. In fact, Yates' pilot program has demonstrated the uniqueness of each local area according to the number and quality of individual Abo sands, the calculated drainage circles, and the particular location of existing wells within their respective 160-acre units.

DENSITY

A close examination of the pilot locations shows that while these wells are ostensibly "80-acre infill wells", most were really not testing 80 acre density, but were situated to test an open 160-acre location that existed due to the placement of the original wells near the edges of the units. In general, the most successful "infill wells" were not true density tests. See Yates Exhibit 17(November 2, 1995). This fact is very important because of its impact on offsetting operators.

DRAINAGE

Despite the reservoir complexity, the overall pool pressure has been drawn down and infill wells did not encounter virgin reservoir pressure (1125 psi). In fact, the degree of pressure depletion was directly related to the distance each infill well was from existing offsetting wells. Or put another way, those infill wells with higher initial pressures were in fact drilled on 160-acre equivalent units and were not true 80-acre density infill wells.

Yates stipulates that the average drainage area in the original pilot program was 122 acres or 76% of 160 acres. This implies that an average "80-acre" location would only have 38 acres from which to drain.

The average infill well total reserves for the 12 completed pilot wells is 697 MMCFG (Exhibit 17, November 2, 1995). Yates' economic threshold was 400 MMCFG cum. Since most of the "infill" wells were actually 160-acre density wells, it is likely that two wells would have to share in the reserves of 687 MMCFG thus falling below the economic threshold.

Yates' testimony shows that the evidence of developing "new" or "unique" reserves by virtue of an 80-acre location is generated after the fact. Because of this, timing will be very important. The operator presented with an 80-acre offset well proposal well have to decide if an 80-

acre location is needed in his section. This means perception of need will drive drilling. Since Tide West's perception is that not all areas of the pool are in need of two wells per 160-acres, Tide West may be forced to drill wells to compete for its share of remaining reserves.

Tide West Oil Company contends that is exactly what has occurred in the case of Yates' Catterson SS Federal Well drilled 339 feet south of Tide West's lease line in Section 23, T7S, R26E. This well tested an undrilled 160-acre area best described as the S/2NE/4 and N/2SE/4 of this section. The drainage radius of Yates' well mostly surely will exceed the 330 foot setback by any calculation.

PRORATIONING

The Division was correct to include the topic of "prorationing" when it docketed the infill issue for hearing because the adoption of an "infill" provision for this pool will compel the adoption of prorationing. The fact that Yates has already drilled fifteen of the twenty-six approved infill wells creates a gas allowable problem:

(1) Should the Division deny pool wide infill drilling then it still must set an allowable for those spacing units which now have two producing wells or, in the alternative, require Yates to shut in one of them. Great Western recommends that the Division deny infill drilling and set a hearing for Yates to appear and show cause why it should be allowed to produce the infill wells concurrently with the parent well.

(2) Should the Division grant pool wide infill drilling, then it is essential to also adopt prorationing in order to protect correlative rights. Great Western recommends that should the Division grant infill drilling that it also adopt prorationing and have the Commission establish the gas allowables for the pool at its next allowable hearing currently set for February 15, 1996.

SUMMARY

Tide West Oil Company contends that in certain areas of the Pecos Slope Abo Gas Pool, second wells within producing 160-acre spacing units will be needed to effectively produce the volumetric gas reserves mapped under theses units. However, Tide West does not conclude that the Yates' pilot program has established the need for the drilling of infill wells on a **pool wide basis** for the three regulatory pools in question.

In Tide West's opinion, the option pool wide drilling of 80-acre infill wells will generate a situation that may cause offset operators to drill unnecessary protection wells. This will simply accelerate the rate of recovery rather than increase ultimate pool recovery. Without a Division hearing on the merits of each proposed infill well, offset operators are deprived of the opportunity to consider the 80-acre well's drainage ramifications in advance and allow for the adjudication of differences of opinion.

Very truly yours,

W. Thomas Kellahin

cc: William F. Carr, Esq.
Attorney for Yates Petroleum Corporation

cc: Great Western Drilling Company
Attn: Robert W. Von Rhee
Manager-Geology & Reservoir