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Hand delivered

David K. Brooks  
Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

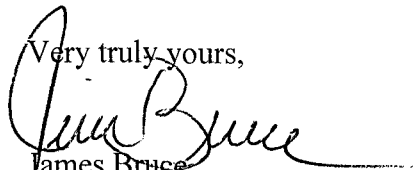
Re: Case No. 13,976/Application of McKay Oil Corporation to amend the special rules and regulations for the West Pecos Slope-Abo Gas Pool, Chaves County, New Mexico.

Dear David:

Enclosed is a spreadsheet regarding estimated ultimate drainage of the wells identified on applicant's technical plats. While the average drainage figure seems relatively high, please note that drainage calculations are highly dependent on water saturation ( $S_w$ ). In his testimony, Mr. Horne stated that, although an  $S_w$  of 35% was used in the calculations, wells in the pool produce virtually no water. Thus, in the drainage calculation,  $(1 - S_w)$  results in a factor of  $1.00 - 0.35 = 0.65$  being used in the denominator, when the factor should be  $1.00 - 0.00 = 1.00$ . As a result, the average drainage area of the wells (112.55 acres) is over-estimated by 35%. Changing the  $S_w$  to 0% would result in average drainage areas of about 73 acres.

Please call me if you need anything further on this matter.

Very truly yours,

  
James Bruce  
Attorney for McKay Oil & Gas, LLC

## McKay Vertical Well Drainage Area

[illegible]

# Area of Well Drainage

$$G = 43560$$

$$\frac{Ah\phi(1-S_w)}{B_{gi}}$$

$$B_{gi}$$

$$GB_{gi}$$

$$A =$$

$$43560h\phi(1-S_w)$$

A = Area of Drainage (in Acres)

S = Original Gas-In-Place

B<sub>gi</sub> = Formation Volume Factor (0.016 for the Abo Sandstones)

φ = Porosity (Percentage of 100)

h = Net Pay (Thickness of Gas Crossover)

S<sub>w</sub> = Water Saturation (Used 35% Although Abo Produces Little Water)