

ALLOWABLE CALCULATIONS - BLANCO MESAYERDE POOL

PRESENT POLICY: When: $F_1 = 3469.71$, $F_2 = 24.606417$ (July, 1986)

A. ONE TWO-WELL TRACT: Assume $AF = 1.00$, $D_1 = 81$, $D_2 = 1000$.

$$\begin{aligned}\text{Allowable}_A &= [AF \times F_1] + [AF \times (D_1 + D_2) \times F_2] \\ &= (1.00 \times 3469.71) + [1.00 \times (81 + 1000) \times 24.606417]\end{aligned}$$

$$\text{TOTAL 320-ACRE ALLOWABLE}_A = 30069 \text{ Mcf}$$

B. TWO ONE-WELL (160-ACRE) TRACTS: $AF_1 = 0.50$, $D_1 = 80$; $AF_2 = 0.50$, $D_2 = 1000$.

$$\begin{aligned}\text{Allowable}_{B1} &= (0.50 \times 3469.71) + (0.50 \times 81 \times 24.606417) \\ &= 2744 \text{ Mcf}\end{aligned}$$

$$\begin{aligned}\text{Allowable}_{B2} &= (0.50 \times 3469.71) + (0.50 \times 1000 \times 24.606417) \\ &= 14038 \text{ Mcf}\end{aligned}$$

$$\text{TOTAL ALLOWABLE}_B = \text{Allowable}_{B1} + \text{Allowable}_{B2} = 2744 + 14038 = 16782 \text{ Mcf}$$

$$\text{DIFFERENCE:} = \text{Allowable}_A - \text{Allowable}_B = 30069 - 16782 = 13287 \text{ Mcf.}$$

C. DESIRED CALCULATIONS: When $AF_1 = 0.50$, $D_1 = 81$, $AF_2 = 0.50$, $D_2 = 1000$.

$$\begin{aligned}\text{Allowable}_{C1} &= (0.50 \times 3469.71) + (81 \times 24.606417) \\ &= 3728 \text{ Mcf}\end{aligned}$$

$$\begin{aligned}\text{Allowable}_{C2} &= (0.50 \times 3469.71) + (1000 \times 24.606417) \\ &= 26341 \text{ Mcf}\end{aligned}$$

$$\text{TOTAL ALLOWABLE}_C = \text{Allowable}_{C1} + \text{Allowable}_{C2} = 3728 + 26341 = 30069 \text{ Mcf}$$

$$\text{DIFFERENCE DESIRED} = \text{Allowable}_A - \text{Allowable}_C = 30069 - 30069 = 0 \text{ MCF}$$

BEFORE EXAMINER STOGNER
OIL CONSERVATION DIVISION

PRO EXHIBIT NO. 4

CASE NO. 9027