



SINCLAIR OIL & GAS COMPANY
TEAS (PENNSYLVANIAN, GAS) POOL
LEA COUNTY, NEW MEXICO

Gas and Condensate Reserve and Economic Data

I. Basic reservoir data:

1. BHP = 6,361 psig (Bomb pressure)
2. Abandonment pressure = 2,000 psig (Assumed)
3. BHT = $168^{\circ}\text{F} = 628^{\circ}\text{R}$ (Measured at time of BHP measurement)
4. Average Porosity = 13% (Sonic log calculation)
5. Average water saturation = 27% (Electric log calculation)
6. Net pay thickness = 36 feet (Log interpretation)
7. Gas gravity = 0.68 (Measured during Multi-Point Back Pressure Test)
8. Condensate Gravity = 53°API
9. Gas-Liquid Ratio = 30,167 cu. ft./Bbl. (Measured during Multi-Point Test)
10. Standard conditions = 15.025 psia and 60°F
11. Gas compressibility, initial condition = 1.1 (Calculated)
12. Gas compressibility, at abandonment = 0.84 (Calculated)

II. Reserve Data:

1. Reservoir volume of 1 SCF = 0.00313 cu. ft. (Initial conditions)
2. Reservoir volume of 1 SCF = 0.00752 cu. ft. (At abandonment)
3. Reservoir volume = 4,150 cu. ft./A-ft.
4. Initial Gas in Place = 1,325 MSCF/A-ft.
5. Gas in place at abandonment = 551 MSCF/A-ft.
6. Gas shrinkage factor = 0.976 (Calculated)
7. Recoverable Gas = $(1,325 - 551) (0.976) = 755 \text{ MCF/A-ft.}$
8. Gas in place containing condensate = $(1,325) (0.976) = 1,293 \text{ MCF/A-ft.}$
9. Condensate in Place = $1,293,000 / 30,167 = 43 \text{ Bbl/A-ft.}$
10. Recoverable Condensate = $(43) (0.20) = 8.6 \text{ Bbl/A-ft.}$
11. Reserve for 160 Acre Spacing:
 - a. Gas = $(160) (36) (755) = 4,348,800 \text{ MSCF}$
 - b. Condensate = $(160) (36) (8.6) = 49,536 \text{ Bbls.}$
12. Reserve for 640 Acre Spacing:
 - a. Gas = $(640) (36) (755) = 17,395,200 \text{ MSCF}$
 - b. Condensate = $(640) (36) (8.6) = 198,144 \text{ Bbls.}$

III. Economics of 160 Acre and 640 Acre Spacing:

1. Gross sale price of condensate = \$2.83 per barrel
2. Gross sale price of gas = \$0.16 per MCF

	160 A	640 A
3. Gross ^{value} of gas and condensate	\$836,000	\$3,344,000
4. Charges against well:		
Development Cost	\$388,000	\$388,000
Operating Cost	\$34,800	\$139,200
Direct Taxes	\$94,200	\$376,000
Royalty	\$104,500	\$418,000 x 4
Total Costs	\$571,500	\$1,322,000
Undeferred Net Profit	\$264,500	\$2,022,000
Life of Well, Years	29	96
Deferred Net Profit (8%)	(-\$50,000)	\$90,000

C-2844
Exhibit No. 4

LARGE FORMAT
EXHIBIT HAS
BEEN REMOVED
AND IS LOCATED
IN THE NEXT FILE

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